



# THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্ব দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 529 Dispur, Monday, 18th July, 2022, 27th Ashadha, 1944 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING & URBAN AFFAIRS.

## NOTIFICATION

The 22nd June, 2022

**No. UDD(T)219/2022/6:-** In exercise of the powers conferred by the Section 9 and Sub-section (1) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) and (Assam Act II of 1960) read with sub-rule (I) of Rules 3 of the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulations) Rules 1962, the Governor of Assam is pleased to published the following notice regarding the publication Draft Master plan for Hojai.

### **Notice for the Publication of Draft Master Plan for Hojai:**

1. It is notified that the Draft Master plan for Hojai prepared by the Directorate of Town & Country Planning, Government of Assam, Town & Country Planning Act.1959 read with Sub-section I of Section 10(Ten) of Assam Town & Country Planning Act (As amended), for the area described in the schedule below is hereby published.
2. Any person or persons affected by the Draft Master plan may submit their objection or opinion in writing to the Director, Town & Country Planning, Government of Assam, Dispur, Guwahati-6 within two months from the date of publication.

3. The Draft Master plan for Hojai with all relevant papers and maps may be inspected free of cost during office hours at the Office of the Director, Town & Country Planning, Dispur, Guwahati-6, the Deputy Director, Town & Country Planning, District Office- Nagaon, the Circle office, Hojai Revenue Circle, Hojai, Office of the Chairman, Hojai Municipal Board, Hojai. Copies of the Draft Master plan for Hojai are available at the office of the Deputy Director, Town & Country Planning, District Office Nagaon for sale on payment.

### **SCHEDULE**

#### **A. Situation and area:**

District	: Hojai
Subdivision	: Hojai.
State	: Assam.
Master Plan Area	: 78.63 Sq. Km.
Municipal Board Area	: <b>5.28 Sq.Km.</b>

Apart from the Hojai Municipal Board Area, Hojai Master Plan area covers 31 Nos. of nearby villages. The villages included in the Draft Master Plan for Hojai with Mouza are as follows:-

Sl. No.	Mouza	Villages
<b>1.</b>	<b>Hojai</b>	1) Amtola
		2) Milik Basti
		3) Hira Basti
		4) Bhokhao Basti
		5) Dakshin Bidyanagr
		6) Dangki Gaon
		7) Dhanuhar Basti
		8) Dimarupar
		9) Fakira Basti
		10) Golaghatiya Basti
		11) Islam Nagar
		12) Teli Basti
		13) Pub Nandalalpur
		14) Pachim Nandalalpur
		15) Pub Nandapur
		16) Pachim Nandapur
		17) Rampur
		18) Pachim Dhaniram Pathar
		19) Pub Dhaniram Pathar

Sl. No.	Mouza		Villages
2.	Lanka	20)	Sankar dev Nagar
		21)	Jurapukhuri
3.	Kaki	22)	Borbhuwa
4.	Kaposbari	23)	Kaposbari
5.	Jugijan	24)	Uttar Aashi Nagar
		25)	Raja Pukhuri
		26)	Uttar Bidyanagar
		27)	Gopal Nagar
		28)	Silguri
		29)	Dakshin Aashi Nagar
		30)	Barpukhuri

**B. Description of Boundaries:**

NORTH : Nam Doboka Pathar  
 SOUTH : Daria Basti and Nandapur Tongia  
 EAST : Padumpukhuri and kandura  
 WEST : Uttar Matikhola

**KAVITHA PADMANABHAN,**

Commissioner & Secretary to the Government of Assam,  
 Department of Housing & Urban Affairs,  
 Dispur, Guwahati-6.

*Chapter: 1*

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**INTRODUCTION TO THE MASTER PLAN AREA**

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Hojai was a part of the Dimasa Kachari Kingdom in medieval times. The Dimasa Kacharies living in Hojai is known as "Hojai-Kacharies" to others. "Hojai" is one of the clans (Sengphongs) of the Dimasa tribe, probably The city "Hojai" got its name from this clan. It was made a sub-division on 15 August 1983 under Nagaon District.

Administrative duties are carried on from Sankardev Nagar in NH-27, where the DC Office, Judicial Courts as well District SP Offices are located. The DC Office campus also houses the Government Circuit House within it. Hojai Judicial Courts are situated at Sankardev Nagar approximately 8 km away from Hojai Town near NH-27. Advocates of the Hojai Judicial Courts have their own Association known as "Hojai Bar Association", established in 1982.

Hojai Municipal Board has an Area of 5.28 Sq.km with a population of 36,638 of which 18,762 are males while 17,876 are females as per report released by Census India 2011.

Before finalization of the planning area, discussion were held with district level officers dealing with developmental works headed by Deputy Commissioner, Hojai and the elected representative of Hojai Municipal Board as well as Hon'ble MLA Hojai Constituency.

It was observed that Hojai town area has been growing haphazardly and this has created enormous problems to the habitant of the town. In this context, "Draft Master Plan Hojai, 2045 is prepared to guide the physical development of the town with some surrounding villages in future. This plan is prepared, basically a land use plan considering all the urban development aspects, with forecasting all the service up to 2045. By and large, this Master plan has been prepared as per the provision of URBAN DEVELOPMENT PLANS, FORMULATION AND IMPLEMENTATION, GUIDELINES, 1996 prepared by the INSTITUTE OF TOWN PLANNERS, INDIA NEW DELHI under the assistance of the Ministry of Urban Affairs and Employment, Govt. of India, New Delhi and Circular issued by U.D.D (T & CP Wing), Govt. of Assam time to time.



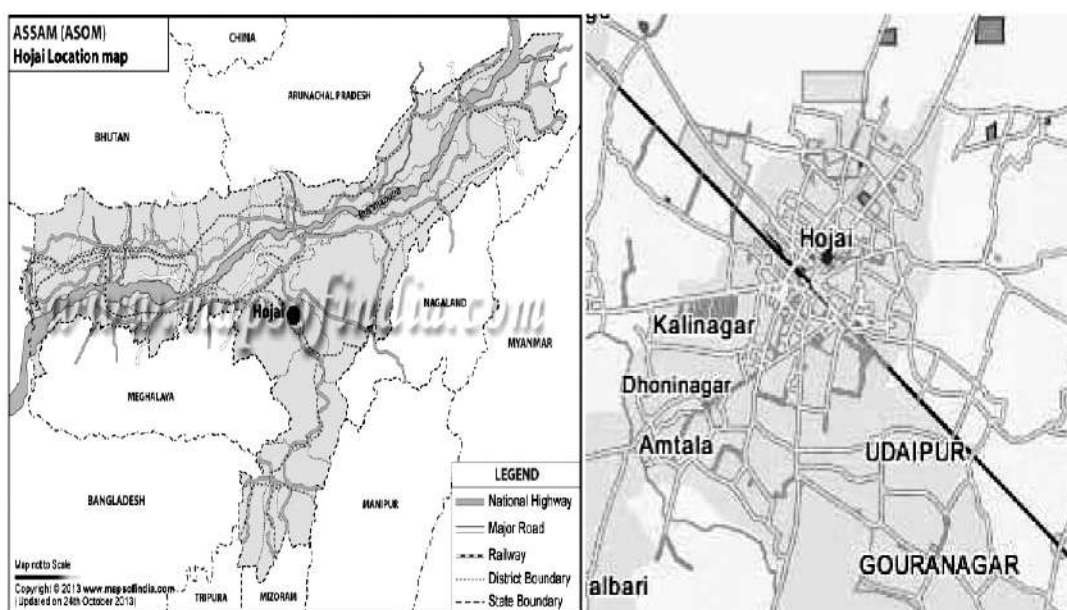
Uniform Zoning Regulations are considered as it is already approved for all the towns of Assam including Hojai Town by the Govt. of Assam.

### 1.1 LOCATION:

Hojai the District head quarter of Hojai District of Assam. Hojai is located at 26.0°N 92.87°E. It has an average elevation of 59 metres (193 feet).

Hojai town is surrounded by Uttar Bidyanagar and Doboka Town in the North, Golaghatiya Basti in the South, Pub Kundura and Dimorujan in the East and Dakshin Bidyanagar and Komarkata in the West.

Hojai Town is situated at a distance of 55 kms. towards South from the Nagaon City and 170 kms. East of the State Capital Dispur, Assam.



Location of Hojai Town

## 1.2 CLIMATE:

The climate of the Hojai District as well as Hojai town is characterized by a highly humid atmosphere all through the year. Summer heat is relieved to a great extent by the cool breeze of the river Jamuna and Kapili. The monsoon starts from the month of May and continues up to August. The winter is cool and starts from November and continues up to February. Generally weather is dry. The maximum and minimum temperature varies from 34.0 Degree C (Max.) 12.0 Degree C (Min). The maximum rain occurs between June to September and average annual rainfall of Hojai is 81.2 MM.

**Table:** Climatic condition of Hojai

SL.No.	Parameter	Description
1.	Temperature	34.00 Degree C (Max.) 12.00 Degree C (Min)
2.	Extreme months	August in Summer and January in Winter
3.	Coldest month of the Year	January
4.	Humidity	90% (Max)
5.	Rainfall	81.20 MM (Annually)
6.	Monsoon Period	53 rainy Days
7.	Winter Season	November to February

## 1.3 BRIEF HISTORICAL DEVELOPMENT OF HOJAI:

Hojai is a newly formed district which is carved out from Nagaon district in Assam state of India. It is one of the 5 new districts of Assam which was declared on 15th August, 2016 by the then Assam's Chief Minister. The headquarters of the district is situated at Sankardev Nagar, which is about 8 km. away from Hojai town. Hojai District was formed from three tehsils of Nagaon District, namely Hojai, Hojai and Hojai. Hojai was a part of undivided Nowgong District (now Nagaon) of then Assam Province.

Hojai is the head quarter town of Hojai District of Assam, situated near the National Highway 27. Hojai was a part of Dimasa Kachari Kingdom in medieval times. According to Ahom Buranjee, Dimasa Kachari Kingdom stretches from Dikhu river to Kallong river. The Dimasa Kacharies living in Hojai are known as "Hojai- Kacharies" to others. "Hojai" is one of the clans (Sengphongs) of Dimasa tribe, probably The city "Hojai" got its name from this

clan. the southern parts are habited by the Manipuri, the north west by the Muslim , South west by the Bangali.

#### **1.4 TOPOGRAPHY:**

Hojai town is situated on the flat alluvial plain which slopes towards North-West and South-West where the old beds of the Kapili river are still in existence. The geographical area presently under Hojai district and its surrounding area was renowned as “Kapili Valley Kingdom” in ancient times. Many beels, ponds and marches surrounded the town as well as the Master Plan Area.

The land is alluvial and loamy and consists of clay and sand. The cultivable land is scattered either sides of the beels as well as the surrounding villages nearest to the town. In considering the high land as well as the physical features of the surrounding areas the Town is growing mainly towards north-east towards the National Highway-36 and some developments have also taken place along other major roads connecting in some trading centers in the District.

#### **1.5 CITY INFLUENCE AND ITS CHARACTERISTICS INCLUDING SETTLEMENT PATTERN, RURAL-URBAN SCENARIO, HISTORY OF THE PHYSICAL GROWTH AND EXPANSION OF HOJAI TOWN:**

Rural-Urban fringe is an important concept in settlement geography. The rural-urban fringe is the boundary zone outside the urban area proper where rural and urban land uses intermix. It is the area where the city meets the countryside. It is an area of transition from agricultural and other rural land uses to urban use. Located well within the urban sphere of influence the fringe is characterized by a wide variety of land use including dormitory settlements housing middle-income commuters who work in the central urban area. Over time the characteristics of the fringe change from largely rural to largely urban. Suburbanization takes place at the municipal boundary of rural-urban fringe.

The main economy of the Hojai rural-urban fringe is agriculture base. The surrounding small villages were also influence the main urban centre. The

trading of agricultural finished goods produce in the rural-urban fringe area was taking place with the main urban centre.

Agriculture is the main source of livelihood of the major population of Hojai. There is an abundance of forest-based small-scale industries like Agar Wood Distillation units, Saw Mills and Bamboo & Cane furniture's manufacturing units. The ethnic groups of this region depend on their traditional activities like weaving, animal rearing, etc. Hojai is also noted for its numerous ancient archaeological sites.

Once famed as the "Rice Bowl" of Assam, Hojai is pre-eminently an agriculture belt and in recent times it has attracted attention owing to its fabulous Agarwood processing and agar-product export to the outside world, especially the gulf countries.

While considering the agro base economy of the rural-urban fringe, secondary and other allied services has to be initiated to boost up the economic growth of the main urban center as well as the whole Hojai planning area. The main reason of low profile economy of the town is that less number of people are engaged in secondary, quaternary and other allied services.

Activities related to trade and commerce and transportation alone comprise only 62% of the total employment of the town. It is expected that employment related to transportation and trade & Commerce is going to increase further after the road linkage is established with the town and surrounding villages.

Lack of infrastructure is also responsible in a substantial manner for economic and industrial development of the Hojai town. If adequate urban infrastructure such as efficient transportation network, well planned market etc. is provided then only the town can only upgrade its economic base but also act as a centre for industrial activities of the whole Hojai planning region.

Therefore, the prime objective of the development strategy of Hojai town will be to bring positive development in the town by improving existing physical infrastructure of the town, so as to encourage more and more people to participation in the secondary and tertiary sector or employment. This will generate more employment in the town, strengthen the local bodies as well as improve the socio-economic condition of the people.

It is observed that different type of developmental works already come up in nearby villages and potential for future development of the region. Presently, the town is growing mainly towards Sankardev Nagar towards the National

Highway -27. Some developments have also taken place along the major roads towards the Railway Station.

## 1.6 CONCEPT OF MASTER PLAN:

A Master Plan is a dynamic long-term planning document that provides a conceptual layout to guide future growth and development. Master planning is about making the connection between buildings, social settings, and their surrounding environments. A master plan includes analysis, recommendations, and proposals for a site's population, economy, housing, transportation, community facilities, and land use. It is based on public input, surveys, planning initiatives, existing development, physical characteristics, and social and economic conditions.



### 1.6.1 MASTER PLANNING CAN ASSUME SOME OR ALL OF THESE ROLES:

Develop a phasing and implementation schedule and identify priorities for action:

- Act as a framework for regeneration and attract private sector investment.
- Conceptualize and shape the three-dimensional urban environment.

- Define public, semiprivate, and private spaces and public amenities.
- Determine the mix of uses and their physical relationship.
- Engage the local community and act as builder of consensus.

As city regeneration initiatives are generally long-term propositions, it is important to consider the master plan as a dynamic document that can be altered based on changing project conditions over time

Master plans can have an important role in determining the shape of the urban environment. If not well conceived, they can lead to problems in the future. All of these issues could have been addressed well in advance as part of the master plan.

The proposals for development should be environmentally sustainable. Master Plan is based on inclusive planning. It considers all sections of people in society in development proposals and focuses on affordability. Master plan gives restrictions on ecologically sensitive areas, on heritage sites and traditional built up areas and gives special norms for these places. Master Plan leads to a balanced growth of the city. It prevents concentration of a particular activity at one place and takes into account efficient distribution of facilities, infrastructure, networks and housing and follows neighborhood concept of development.

### **1.6.2 AIMS AND OBJECTIVES OF THE PLAN :**

The main aims and objectives for preparation of Hojai Master Plan are as follows;

- (a) To improve the existing conditions of all facilities services of Hojai Master Plan Area and to develop all the urban infrastructures for a estimated population of 175167 by 2045.
- (b) To integrate the development of various activities of Hojai town with the adjoining areas.
- (c) To functional distribute of the work centres and residential areas so as to minimize the travel distances and increase efficient functioning of various activities.
- (d) To design a safe, easy and speedy circulation system so as to achieve an efficient transportation network for movement of goods and passengers.
- (e) To accelerate the economic growth by increasing economic activities like industries, services and trade and commerce etc.

- (f) Harmonious judicious utilization of land to ensure compact urban development.
- (h) Ensure urban environment by improvement of infrastructure facilities .

### **1.7 NEED OF A MASTER PLAN FOR HOJAI TOWN:**

A master plan or a development plan or a town plan may be defined as a general plan for the future layout of a city showing both the existing and proposed Land use plan. A master plan is prepared either for improvement of an old city or for a new town to be developed on a virgin soil. A master plan is a blueprint for the future. It is a comprehensive document, long-range in its view; that is intended to guide development in the township for the next 20 to 25 years.

It helps in restricting the haphazard and unplanned growth, arranges the pattern of a town in such a way so as to satisfy the present requirements without introduction of future improvements by the coming generations. It also aims at intelligent and economic spending of the public funds for achieving welfare of the inhabitants in respect of amenity, convenience and health.

On the other hand Master Plan also serves as a guide to the planning body for making any recommendations for public improvement. It removes the defects of uncoordinated physical growth of the various components of a town due to the fact that it considers the entire city area or town as planning and development entity.

To check the haphazard and unplanned growth of the town which have come up due to over-crowding of population such as acute shortage of houses, traffic congestion, inadequate open spaces and insufficiency in public amenities etc, to incorporate the unforeseen development and arranges the pattern of township have lead to the thinking of Preparation of GIS based Master Plan for Hojai town.

### **1.8 HOJAI AS A URBAN LOCAL BODY:**

Hojai Municipal Board : Hojai Town Committee was formed in the year 1958 and the Town Committee was established first by election on 25/06/1958 under the Chairmanship of Jugal Kishore Kedia of Hojai Town Committee. The Town Committee was upgraded to Hojai Municipal Board vide Govt. Notification No.

LML.240/63/12, Dated Shillong the 6<sup>th</sup> November, 1963. and awarded to Hojai Town by the Government of Assam to establish a Municipal Board for providing the basic infrastructure facilities to the inhabitants of the town. The Municipal Board was established and run-in accordance with the provisions laid down in the Assam Municipal Act of 1956. Hojai town comes under the Administration of Hojai Municipal Board with 19 Nos. of wards in the town and as on 2021 there are 19 Nos. of Municipal wards in the town.

Total area of Hojai Municipal Board is 5.28 sq. km. with total road length of 86 Km. Hojai Municipal Board consists of the Chairman, Vice-Chairman and wards commissioners who are elected representatives of the wards. The Chairman is the head of the Administration and presides over the meetings of the board. The Executive Officer oversees and administers the plan and execution of the day - to-day activities of the board. Hojai Municipal Board is basically entrusted with the maintenance of roads and drainage system, streets lights, public health facilities and medical, water supply to the inhabitants in the Municipal boundaries in collaboration with PHE Department.

Hojai Municipal Board also maintains recreational parks, libraries, community halls and municipal markets. Hojai Municipality Boards has various sources of revenue collection and also receive annual grants from the Government. It levies taxes on holdings, rickshaws, carts, cycles, stalls, open spaces, markets and receives taxes on houses, land, water and sanitation.



Hojai Municipal Board



*Chapter:2***DEMOGRAPHY**

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The scientific or more specifically statistical study of population, its size, density, distribution and growth are known as demography. The study of population and its relating characteristics are the basic factor for long range planning works in a town or a city. The study of change in the population and its distribution and composition are also enabling to force the growth of the urban area. The important demographic aspects like housing facilities, urban infrastructure development both for present and future should be thoroughly studied during the preparation of any development plan.

An analysis of demographic features like growth of population, its distribution & composition etc. is absolutely necessary to assess the various civic needs like housing facilities , urban infrastructure and other basic services and the amenities. These important aspect of demography both present and future have been thoroughly studied at the time of preparation of Hojai Master Plan.

**2.1 GROWTH OF POPULATION:**

To better understand the trend of growth of population within Hojai Master Plan Area, population had been calculated from the year 1961 Census. The population of Hojai town as per 1961 is 12857 and it has increased to 35718 in 2001 and 36638 in 2011 as per census of India. The population of Hojai Master Plan area shows a steady growth. Following table shows the growth of population of Hojai Town as well as the Rural area.

**Table :** Trend of Population Growth in Hojai Master Plan Area :

Year	Municipal Area			Rural Area (Excluding Hojai M.B. Area Population)		
	Hojai M.B.Area Population	Total increase	Growth rate per decade	Village Area Population	Total Increase	Growth rate per decade
1961	12857	-		35250	-	-
1971	22769	9912	77.09	39950	4700	13.33
1981*	27341	4572	20.07	46300	6350	15.89
1991	31926	4585	16.77	57530	11230	24.25
2001	35718	3792	11.88	69341	11811	20.53
2011	36638	920	2.58	86211	16870	24.33

Source: Census of India

## 2.3 POPULATION CHARACTERISTICS:

**Table :** Existing population of Hojai Master Plan Area as per 2011 census

Sl. No.	Master Plan Area 2045	Population (2011)	P.C (%)
1	Hojai Municipal Area (19 wards)	36638	29.82%
2.	30 Revenue village	86211	70.18%
	Total Population	122849	100 %

Source: Census of India

The total population of Hojai Master Plan area as per 2011 census is 122849 out of which 36638 i.e 29.82% within municipality area covering 19 Nos. of wards and rural area population is 86211 which is about 70.18% of the total planning area population

**Table:** Village Wise Population and occupied residential houses of Hojai M.P.  
Area as per Census, 2011

Sl. No.	Locations/Villages	Population 2011	Male	Female	Households	Area in sq. Km
1	Dangki Gaon	3114	1568	1546	519	1.40
2	Pub Dhaniram Pathar	6280	3281	2999	1183	2.54
3	Pachim Dhaniram Pathar	639	317	322	103	0.99
4	Bhokhao Basti	1777	925	852	383	1.87
5	Dakshin Bidyanagr	3250	1651	1599	676	1.19
6	Uttar Bidyanagar	3439	1718	1721	703	1.03
7	Dhanuhar Basti	4192	2184	2008	792	4.40
8	Dimarupar	3355	1656	1699	604	2.60
9	Fakira Basti	1592	822	770	308	3.13
10	Golaghatiya Basti	9809	5022	4787	1960	4.03
11	Gopal Nagar	5310	2641	2669	847	3.07
12	Islam Nagar	3079	1558	1521	447	2.40
13	Pub Nandalalpur	1424	734	690	271	1.81
14	Pachim Nandalalpur	548	257	291	110	2.86
15	Pub Nandapur	627	314	313	110	1.24
16	Pachim Nandapur	1223	622	601	232	1.41
17	Silguri	1445	775	670	277	1.58
18	Teli Basti	1970	1039	931	381	2.77
19	Rampur	4580	2356	2224	949	1.02
20	Barpukhuri	8318	4212	4106	1442	2.43
21	Sankar dev Nagar	1826	919	907	379	3.67
22	Amtola	1289	640	649	254	2.82
23	Milik Basti	3084	1623	1461	510	6.54
24	Hira Basti	2130	1075	1055	294	2.67
25	Dakshin Aashi Nagar	2942	1474	1468	508	2.66
26	Uttar Aashi Nagar	3115	1570	1545	546	2.84
27	Raja Pukhuri	1237	628	609	202	2.86
28	Borbhuwa	1576	796	780	215	
29	Kaposbari	1460	720	740	105	6.48
30	Jurapukhri	1581	840	741	294	2.10
<b>Total</b>		86211	43937	42274	15604	

Source: Census of India

**Table:** Ward wise population of Hojai M.B. Area as per 2011 census

Ward No.	Household	population	Male	Female	SC	ST
1	492	2539	1310	1229	109	10
2	393	2111	1093	1018	215	50
3	278	1340	693	647	47	1
4	665	3257	1698	1559	491	56
5	327	1675	861	814	373	3
6	412	2021	1036	985	239	15
7	371	1859	930	929	25	0
8	333	1667	858	809	143	0
9	217	1130	574	556	86	2
10	372	1920	994	556	86	2
11	345	1586	793	793	152	7
12	199	1158	588	570	27	0
13	475	2549	1314	1235	218	21
14	519	2503	1314	1235	218	21
15	281	1540	790	750	0	1
16	281	1540	790	750	0	1
17	269	1528	777	751	30	0
18	510	2624	1304	1320	248	21
19	359	2278	1158	1120	0	0
Total	7049	36638	18762	17873	3158	197

Source : Hojai M.B and Census of India

As per census 2011, total nos. of wards under Hojai Municipal Board was 09 nos. and population was 36638, but the nos. of wards has increased to 19 nos. in the year of 2022.

## **2.4 DENSITY OF POPULATION:**

The number of population and the size of development of the town or city implies the density of population. Generally, the pressure of population from rural to urban area increases in search of better jobs, educational facilities, source of income, trade and commerce etc. The density of population of Hojai District as per 2001 was 512 persons per sq. km. and it has increased to 640 persons per sq. km. in 2011 census.

The density of population of Hojai Town as per 2011 census was 640 persons per sq.km and rural area density of population was 550 prsons per sq. km.

## **2.5 SEX-RATIO:**

The sex-ratio of Hojai town is around 956 compared to 958 which is average of Assam state. The population of children of age 0-6 years in Hojai Town Area is 3869 which is 10.56% of the total population of Hojai MB. There are 1960 male children and 1909 female children between the ages of 0-6 years. Thus as per the Child sex ratio of the town is 974 which is greater than the average sex ratio of 962 of Assam.

## **2.6 THE LITERACY RATE :**

Literacy rate of Hojai town is 90.66% out of which is higher than the State average of 72.19%. Out of which, 93.77% males are literate and 87.39% females are literate. There are 8.62% Scheduled Caste (SC) and 0.54% Scheduled Tribe (ST) of total population in Hojai town.

**Table:** Sex Ratio of Hojai Master Plan Area :

Sl. No.	Hojai Planning Area	Population	Sex Ratio	
			Male	Female
1.	Hojai M.B Area	36638	18762	17876
2.	Village Area	86211	43937	42274

Source : Hojai M.B and Census of India

## 2.7 CASTE :

As per census of India. there are about 8.62% Scheduled Caste (SC) and 0.53% Scheduled Tribe (ST) of total population within Hojai Master Plan Area.

## 2.8 SIZE OF THE HOUSEHOLD:

The 2011 Census shown that more than half of the household in the region were medium sized with an average member of 5.20. According to census 2011 the medium sized households (4-5) is predominant because of the increasing trends towards nuclear households and rapid urbanization are at higher rate, there will be considerable pressure on housing in coming future. The overall household size of Hojai Master Plan Area is 5.2.

## 2.9 POPULATION PROJECTION FOR THE YEAR 2045:

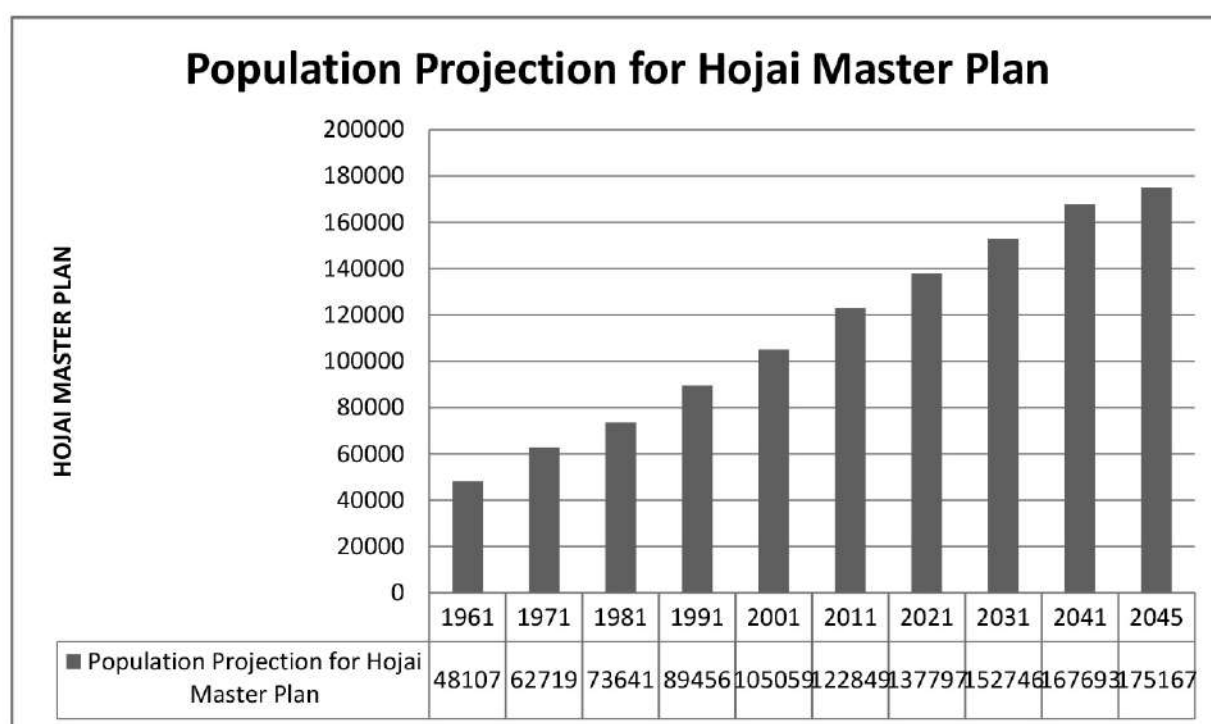
Population projection is a scientific/mathematical attempt to peep into the future population scenario, conditioned by making certain assumptions using data to the past available at the point of time.

It is mandatory for Government policy makers and planners to determine the future demand for basic human needs such as food, water, education, health, energy, and other services and to forecast future demography characteristics.

The population projection of Hojai Master Plan area done by utilizing the maximum possible accuracy methods like Arithmetic Increase method and Incremental Increase Method to determine the future population which are shown in the table below :

**Table :** Population Projection of Hojai Master Plan Area

Year	Municipal Area						
	Hojai M.B.Area Population	Total increase	Village Area population	Total increase	Total Population in the Planning Area	Total Increase in the Planning Area	Growth rate (%)
1961	12857	-	35250	-	48107	-	-
1971	22769	9912	39950	4700	62719	14612	30.37
1981*	27341	4572	46300	6350	73641	10922	17.41
1991	31926	4585	57530	11230	89456	15815	21.47
2001	35718	3792	69341	11811	105059	15603	17.44
2011	36638	920	86211	16870	122849	17790	16.93
2021	41394 (P)	-	96403 (P)	-	137797(P)	-	-
2031	46150 (P)	-	106596(P)	-	152746(P)	-	-
2041	50906 (P)	-	116787(P)	-	167693(P)	-	-
2045	53284 (P)	-	121883(P)	-	175167(P)	-	-



*Chapter: 3***ECONOMIC BASE AND EMPLOYMENT:**

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The economic base deals with how a community earns its living. It consists of that proportion of employment and income generated in a local community that determines the overall level of production. The growth, decline or stagnation of the local community rests upon the basic economic activity, which goes beyond local needs.

There are several measures of economic activity, but employment and income are the most commonly used in actual case studies. Information about employment and income values are the easiest to find at the county level.

Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories of paid employment (whether at work or with a job but not at work); or self-employment (whether at work or with an enterprise but not at work).

The working- age population is the population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made.

The classification by economic activity refers to the main activity of the establishment in which a person worked during the reference period. The branch of economic activity of a person does not depend on the specific duties or functions of the person's job, but on the characteristics of the economic.

**3.1 FORMAL SECTOR EMPLOYMENT:**

Formal sectors represent all jobs with specific working hours and regular wages and the worker's job is assured. The workers are employed by the government, state or private sector enterprises. It is a licensed organization and is liable to pay taxes. It includes large-scale operations such as banks and other corporations.

From the raw data and T&CP, Nagaon survey team report it is found that out of the total working population in Hojai town area only about 40 % populations are engaged in the formal sector of employment.



### **3.2 INFORMAL SECTOR EMPLOYMENT:**

Employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.). The underpinning reasons may be the non-declaration of the jobs or the employees; casual jobs or jobs of a short duration; jobs with hours of work or wages below a specified threshold (e.g. for social security contributions); or lack of application of law and regulation in practice. In the case of own-account workers and employers, the informal employment status of the job is determined by the informal sector nature of the enterprise. Employers (with hired workers) and own-account worker (without hired workers) are considered to be informal when their economic units belong to the informal sector. All contributing family workers are classified as having informal employment, irrespective of whether they work in formal or informal sector enterprises.

It is observed that some encroachments on the both side of the footpath by the illegal vendors, which acutely rise the traffic congestion at Hojai main road.

Learn and Earn is a scheme implemented by the Government of India since 2013-14 for skill development of minorities. The scheme aims at upgrading the skills of minority youth, especially women in various modern/traditional skills depending upon their qualification, present economic trends and market potential, which can earn them suitable employment or make them suitably skilled to go for self-employment. This project was implemented by AJMAL FOUNDATION for two years. For example, training of tailoring was conducted for helpless women who included widows and college dropouts. Apart from tailoring, training on other trades like retail, hospitality, bedside assistant, security guard and retail were also provided. There were 200 (70 females) beneficiaries in 2014-15 with a placement percentage of 86%. In the year 2016-17 (89 females), 250 beneficiaries were there and the project is still ongoing with more beneficiaries being added.

Nai Manzil aims to engage constructively with poor Minority youth and help them obtain sustainable and gainful employment opportunities that can facilitate them to be integrated with mainstream economic activities. It aims at mobilising youth from minority communities who are school drop-outs and provide them with formal education and certification up to level 8th or 10th

through National Institute of Open Schooling (NIOS) or other State open schooling systems. As a part of the programme, it provides integrated Skill Training to the youth in market driven skills and provide placements to at least 70% of the trained youth in jobs which would earn them basic minimum wages and provide them with other social protection entitlements like Provident Funds, Employee State Insurance (ESI) etc. This project was implemented by AJMAL FOUNDATION since 2017 and around 1940 candidates have benefitted from the program, out of which 754 were females.

DDU-GKY is a part of the National Rural Livelihood Mission (NRLM), tasked with the dual objectives of adding diversity to the incomes of rural poor families and cater to the career aspirations of rural youth. It is uniquely focused on rural youth between the ages of 15 and 35 years from poor families. It plays an instrumental role in supporting the social and economic programs of the government like the Make in India, Digital India, Smart Cities and Start-Up India, Stand-Up India campaigns. Over 180 million or 69% of the country's youth population between the ages of 18 and 34 years, live in its rural areas. Out of these, the youth from poor families with no or marginal employment is about 55 million.

In order to energize and build mass support as well as create awareness amongst the rural youth, The DDU-GKY projects are market linked and implemented in PPP mode. Industry interactions have emphasised the need for training in soft skills, team working etc., as more important than domain skills, which they learn on the job. To ensure that candidates can perform in their work areas as well as assimilate into the organization and society, DDU-GKY has mandated a minimum of 160 hours of training in soft skills, function English and computer literacy.

The DDU-GKY program is being implemented under AJMAL FOUNDATION since 2017 and so far 302 candidates (115 females) have been enrolled in different trades like Food and Beverages, Bedside Assistant, Sales Person-Retail, Accounting, BPO Voice and so on. So far, 63% of them have been placed.



Self employment program in Hojai under DDU-GKY & Ajmal Foundation

**Table :** Formal and Informal sector employment in Hojai M.B. Area

Sl. No.	Categories	Nos.	P.C
1	Working population	12680	35 %
2	Non working population	23958	65 %
3	Formal sector employment	5072	40 %
4	Informal sector employment	7608	60 %

From the table, it is seen that out of the total working population of 12680, about 40 % populations in Hojai town area are engaged in formal and 60 % populations are engaged in informal sector of employment.

### 3.3 OCCUPATIONAL PATTERN:

According to Census of India, worker is defined as person who does business, job, service, and cultivator and labour activity. The capacity of an urban area to provide variety of jobs, absorb its working population in various sectors of economy is an indicator of the economic viability of the urban area. The participation rate also gives us an idea of the share of gainfully employed persons against the dependent and non-working population. Generally the participation rate in the urban area is high compared to the rural area.

Occupation pattern is different of the peoples of Hojai Master Plan Area. The rural peoples are mainly based upon the primary sector activities like agricultural and allied activities such as Horticulture, Forestry, Fishery, Animal Husbandry (dairy, poultry, and goat), Floriculture etc.

On the other hand urban livelihoods are based upon secondary and tertiary activities like manufacturing and services etc.

Total working population of Hojai MB Area is 12680 which are either main or marginal workers out of which 10879 are male and 1801 are female. Total main workers are 11020 out of which male main workers are 9710 and female main workers are 1310. Total marginal workers of Hojai are 1660. Table below depicts the working population of Hojai MB Area.

	Total	Male	Female
Total Workers	12680	10879	1801
Main Workers	11020	9710	1310
Main Workers Cultivators	142	137	5
Agriculture Labourer	73	56	17
Household Industries	312	153	159
Other Workers	10493	9364	1129
Marginal Workers	1660	1169	491
Non Working Persons	23958	7883	16075

Hojai town Working Population ---Census 2011

*Chapter: 4***HOUSING AND SHELTER**

Housing is one of the most important life components giving shelter, safety and warmth, as well as providing a place to rest. Housing or quality of life is more dependent on some elements of housing areas such as disposition of various working areas, layouts development of land, provision of roads, water supply system, sewerage, drainage and provision of basic amenities like shops, schools, parks and play grounds etc. The urban form and character emerges from the quality of housing areas and inter relationship of housing areas with work centre and other non- residential areas.

Housing is a major element of people's material living standards. It is essential to meet basic needs, such as for shelter from weather conditions, and to offer a sense of personal security, privacy and personal space. Good housing conditions are also essential for people's health and affect childhood development.

The urban housing is mainly restricted to within the Municipal boundaries. The residential areas outside the municipal areas are rural housing. Normally the rate of housing spread of town should range between 6-7 hectare per 1000 persons and the rate of housing spread within the Master Plan Area is around 22 Hectare per 1000 persons.

**Table :** Ward wise population distribution and Nos. of households of Hojai Municipal Area

Ward No.	Population as per 2011	No. of household	Housing size
Ward No. - 1	2539	399	6.4
Ward No. - 2	2111	483	4.4
Ward No. - 3	1340	244	5.5
Ward No. - 4	3257	501	6.5

Ward No. - 5	1675	331	5.1
Ward No. - 6	2021	390	5.2
Ward No. - 7	1859	342	5.4
Ward No. - 8	1667	364	4.6
Ward No. - 9	1130	161	7.0
Ward No. -10	1920	307	6.2
Ward No. - 11	1586	315	5.0
Ward No. - 12	1158	219	5.3
Ward No. - 13	2549	841	3.0
Ward No. - 14	2503	573	4.4
Ward No. - 15	1540	230	6.7
Ward No. - 16	1540	156	9.9
Ward No - 17	1528	217	7.0
Ward No - 18	2624	405	6.5
Ward No. -19	2278	326	6.10
<b>Total</b>	<b>36638</b>	<b>6804</b>	<b>5.38</b>

**Table:** Village Wise Population and occupied residential houses of Hojai M.P.  
Area as per Census, 2011

Sl. No.	Locations/Villages	Population 2011	Male	Female	Households	Area in sq. Km
1	Dangki Gaon	3114	1568	1546	519	1.40
2	Pub Dhaniram Pathar	6280	3281	2999	1183	2.54
3	Pachim Dhaniram Pathar	639	317	322	103	0.99
4	Bhokhao Basti	1777	925	852	383	1.87
5	Dakshin Bidyanagr	3250	1651	1599	676	1.19

6	Uttar Bidyanagar	3439	1718	1721	703	1.03
7	Dhanuhar Basti	4192	2184	2008	792	4.40
8	Dimarupar	3355	1656	1699	604	2.60
9	Fakira Basti	1592	822	770	308	3.13
10	Golaghatiya Basti	9809	5022	4787	1960	4.03
11	Gopal Nagar	5310	2641	2669	847	3.07
12	Islam Nagar	3079	1558	1521	447	2.40
13	Pub Nandalalpur	1424	734	690	271	1.81
14	Pachim Nandalalpur	548	257	291	110	2.86
15	Pub Nadapur	627	314	313	110	1.24
16	Pachim Nandapur	1223	622	601	232	1.41
17	Silguri	1445	775	670	277	1.58
18	Teli Basti	1970	1039	931	381	2.77
19	Rampur	4580	2356	2224	949	1.02
20	Barpukhuri	8318	4212	4106	1442	2.43
21	Sankar dev Nagar	1826	919	907	379	3.67
22	Amtola	1289	640	649	254	2.82
23	Milik Basti	3084	1623	1461	510	6.54
24	Hira Basti	2130	1075	1055	294	2.67
25	Dakshin Aashi Nagar	2942	1474	1468	508	2.66
26	Uttar Aashi Nagar	3115	1570	1545	546	2.84
27	Raja Pukhuri	1237	628	609	202	2.86
28	Borbhuwa	1576	796	780	215	
29	Kaposbari	1460	720	740	105	6.48
30	Jurapukhuri	1581	840	741	294	2.10
<b>Total</b>		86211	43937	42274	15604	

#### 4.1 HOUSING CONDITION:

Housing is a major element of people's material living standards. It is essential to meet basic needs, such as for shelter from weather conditions, and to offer a sense of personal security, privacy and personal space. Good housing conditions are also essential for people's health and affect childhood development.

Housing condition includes the study of housing base on type of structure i.e., permanent/ semi- permanent, physical infrastructure, mass space relationship, condition of the material use for walls and floors etc. It is important to be studied because it indicates the efficiency and sustainability of the housing stocks, whether the houses are livable or not. Based on the above said parameters, the condition of houses has been segregated and the analysis is done as good, livable and dilapidated houses of Hojai Municipal Area comparing with Hojai District.

**Table No.:** Housing condition

Residence (%)				
Area	Total	Good	Livable	Dilapidated
<b>Assam</b>	62,72,151	33%	56%	11%
<b>Hojai District</b>	1,30,577	34.8	57.4%	7.9%
<b>Hojai M.B</b>	7049	56.6%	33.5%	6.1%

**Source:** Census of India, 2011 and T&CP, Nagaon Compilation

## 4.2 CONSTRUCTION MATERIAL OF HOUSE:

The survey carried out by Town and Country Planning, Nagaon in 2020-21 and as per Census of India, 2011, it is found that the overall housing condition in the Hojai Master Plan area is quite satisfactory but the distance between nearest settlement neighbourhood is very less. The settlement pattern is very compact. Though the percentage of Good Housing Condition is high (58%) but the livable condition household is needed to be upgrade in the Hojai Municipal Area. The percentage of R.C.C structure is only confined in the Town area, specially the Market stores, Banks, Hotels along the major roads of the town and also some residential Buildings in the town area. Housing condition in the village areas were basically Livable and semi pucca type.

The following table shows the condition of existing housing stocks of Hojai Plan Area.



**Table:** Materials used for roof

Area Name	Total Number of HHs	Grass/ Thatch/ Wood/ Mud	Plastic Polythene	Hand made Tiles	Machinemade Tiles	Burnt Brick	Stone/ State	G.I./ Metal/ Asbestos/ sheets	Concrete	Any other Material
						27	28	29	30	31
State	62,72,151	18.60 %	2.10 %	0.70%	0.3%	0.1%	0.80 %	74.20%	2.90%	0.20%
Hojai District	1,30,577	24.1 %	0.2 %	0.3%	0.1%	0.1%	1.6%	70.4%	3%	0.2%
HMB	7049	2.1%	0.2%	0.1%	0.1%	0.1%	5.5%	79.6%	12.2%	0.1%

Source: Census of India, 2011

**Table:** Materials used for walls

Area Name	Grass/ Thatch/ Bamboo etc.	Plastic/ Polythene	Mud/ Unburnt Brick	Wood	Stone not packed with mortar	Stone packed with mortar	G.I./ Metal/ Asbestos sheets	Burnt Brick	Concrete	Any other Material
							38			
State	66.40%	0.60%	3.60 %	1.60%	0.70%	1.40%	1.10%	21.20%	2.90%	0.50%
Hojai District	65.8%	0.5%	5.1%	2.3%	1.5%	4%	0.2%	17.4%	2.7%	0.6%
HMB	41.9%	0.5%	2.1%	4.5%	2.8%	10.8%	0.8%	27.4%	7%	2.1%

Source: Census of India, 2011

**Table :** Materials used for floor

Area Name	Mud	Wood/ Bamboo	Burnt Brick	Stone	Cement	Mosaic/ Floor Tiles	Any other material
State	78.60%	2.10	1.20	0.40	16.60	1.00	0.10
Hojai District	83%	0%	1%	0%	15%	0%	0%
HMB	43%	0.7%	2.8%	2.2%	48.2%	3.1%	0%

**Source :** Census of India, 2011

### 4.3 AVAILABILITY OF BATHROOM AND LATRINE

As per 2011 Census about 97.1% of households have sanitary latrine and Bathroom and 72.5% of the households have other type of latrine in the Hojai Master Plan Area.

### 4.4 HOUSING STOCK AND FUTURE REQUIREMENT:

The housing requirement is more in the urban area than that in the rural areas. Almost all people in rural area have got their own house. The total housing stock and future requirement of houses up to 2045 in the Hojai Master Plan Area were calculated based on the city/ town level data on the houseless population and pavement dwellers, the houseless population is derived from the data published as part of Census of India, 2011. The total requirement of dwelling unit in the planning area as per the planning norms is as follows:-

#### **4.5 HOUSING REQUIREMENT FOR FUTURE POPULATION OF HOJAI TOWN AREA TILL 2045:**

53284-36638 Nos. =16646

Assuming family size of 5 persons, new houses will be required

$16646/5 = 3329$  Nos.

Housing Requirement for future Population of Hojai Rural Area till 2045.

121883-86211=35672

Assuming family size of 5 persons, new houses will be required

$35672/5 = 7135$  Nos.

Housing Requirement for future Population of Hojai Master Plan Area till 2045

175167-122849 =52318 Nos

Assuming family size of 5 persons, new houses will be required

$52318/5 = 10464$  Nos.

**Table :** Total housing stock and future requirement of houses :

<b>Sl. No.</b>	<b>Area</b>	<b>Total no. of housing stock as per 2011</b>	<b>Housing requirement up to 2045</b>
<b>1</b>	<b>Hojai M.B Area</b>	16646	3329 Nos.
<b>2</b>	<b>Rural Area</b>	35672	7135 Nos.
<b>Total</b>		<b>53725</b>	<b>10464 Nos.</b>

*Chapter: 5***TRANSPORTATION**

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Transportation is the means to carry people and goods from one place to another. This has become very important in each stage of human civilization. If the present means of transportation were not developed, situation of the world would be totally different.

Transportation has contributed much to the development of economic, social, political and cultural fields and uplifting their condition. Speedy industrialization is impossible without development of transportation. It is unavoidably necessary to promote transport system for the proper development of agricultural sector and rural areas. Without development of transportation neither mass production nor distribution is possible.

Transportation helps in mass production. Whether it is to purchase and bring raw materials or it is to distribute finished goods, one or the other means of transport is necessary. This expands old markets and creates new ones. As a result, demands for goods increases and production should also be increased.

The contribution of transportation is very important to transport commodities to nooks and crannies of the world in a little time. If the development of transportation was not made, market would be limited in local areas and production would be limited to meet local needs only. As a result, economy of each area would remain in undeveloped condition.

Transportation helps much to the development of different industries, which produce perishable goods, such as fisheries, poultry firms, horticulture, dairy etc. Transport carries the perishable goods produced by such industries to the consumers living in different distant places in time. Otherwise such products would not be possible to supply to the consumers. The main role of transport is based on the need to provide and enhance access to various locations for individuals and businesses within both personal and professional domains. In regards to households, people use transport to reach shops, institutions and work premises. Transport creates a connection between people and their recreational and personal activities as well as medical and social facilities.

In the early days of humanity, walking was the best form of transportation. As man evolved and began to build cities, walking became an ever-increasingly difficult way of getting around. We needed a better system.

So with time, patience, and a lot of exertion, humans developed first the wheel, then the bicycle, and eventually the automobile.

As time passed and technology flourished, transportation has become easier, faster, and far more convenient than ever before. Transportation makes life easier because it allows for efficient movement from one point to another. It is an integral part of our lives. Here are 15 reasons why transportation is important.

1. Transportation is a part of infrastructure
2. Transportation allows for the movement of goods & services
3. Transportation allows for the movement of people
4. Transportation can improve efficiency
5. Transportation allows us to explore & discover
6. Transportation develops tourism
7. Transportation increases freedom
8. Transportation creates job opportunities
9. Transportation facilitates trade
10. Transportation create revenue for a stable economy
11. Transportation enhances development
12. Transportation increases standard of living
13. Transportation enhances public safety
14. Transportation is a convenience
15. Transportation makes life easier

It is hard to imagine living in a world without access to transport. Since time immemorial, people have come up with ways to move around rather than remain stagnant in one place. Even when technology was at the stage of infancy and numerous modes of transportation were yet to be invented, there was always a way to take people, animals, and objects from one point to another.

Transportation is the foundation of any society. Economies thrive on having the right infrastructure that consists of features such as proper road links and modern airports. Many industries require transport to improve their businesses. Workers depend on transport to full fill their obligations. Good transportation promotes business ventures by enabling the workforce to move around safely and quickly. Each day and at every moment, the importance of transportation is apparent. The whole political, social, and economic well-being of a nation relies on a well-organized transport system.

Various forms of movement are available, including tempu, buses, bikes, trains, trucks, cars, planes, and more. Each mode of transportation has its level of value in different parts of the world that makes it more crucial to one demographic than another.

## **5.1 TRANSPORTATION NETWORK:**

### **5.1.1 Regional Connectivity of Hojai:**

The town of Hojai is connected well to the other places of Assam by roadways. Regular buses services are available from Hojai to other parts of Assam, towns like Guwahati, Nagaon, Diphu, Hamren, Karbi anglong, Lanka, Lumding through PWD roads to State highways via National highways which further connects to rest part of Assam in particular and India as a whole. In Hojai buses and auto rickshaws are the local means of transport.

## **5.2 NETWORK OF ROAD:**

Roads are part of urban and rural infrastructure. These roads are required for both intra-city and intercity movement and render much higher level of service compared to Regional Roads, State Highways and National Highways. Quality of life is depends on efficient and effective road system, of course, with the support of other infrastructural services such as water supply, sewerage, drainage, electricity, telephones etc. in order to perform social, economical& cultural activities.' Urban transportation network is required to facilitate movement of people and goods and therefore efficient network is necessary for their efficient movement.

Importance of Urban roads is increasing on account of the fact that urban areas are increasing in their size and number.

**5.3 INTERCITY CONNECTIVITY (From Hojai) :**

Hojai has the intercity connectivity by Rail as well as by Road. The table below shows to various modes of transportation and its connectivity with the nearest towns/cities like Nagaon, Tezpur, Lanka, Lumding, Diphu, Dimapur, Guwahati, Jagoirad, Silchar, Chaparmukh Jn. etc.

**Table :** Modes of transportation and its connectivity with the nearest cities/towns

Urban centres from Hojai	Distance (KM)	Time (hrs.)	Distance (KM)	Time (hrs.)
		By Road	Rail	By Rail
Jamunamukh	32.4	45 min	16	16 min
Chaparmukh Jn	74.5	1 h 23min	45	40 min
Lanka	13	13 min	14	14 min
Nagaon	54.9	1 h 5 min	52	1 h 2min
Lumding	58.4	1 h 8 min	44	1h
Diphu	91.6	1 h 44min	77	2 h 17 min
Tezpur	103.4	2h 22min	-	-
Guwahati	170.6	3h 27 min	112	2h 35 min
Dimapur	142.9	3h 12 min	115	2h 17min
Jagoirad	115	2 h 9 min	78.2	1h 13min
Silchar	260	5 h 9 min	244	9 h 8 min

Modes of transportation

**Table :** Road Length (in Km) of Hojai M. B. Area

Total Length	Surfaced				Unsurfaced		
	WBM/ WMM	BT/CC	Paver Block	Total	Motorable	Non motorable	Total
38.90 Km.	7.00 Km.	8.50 Km	9.50K m	25.00 Km	<b>9.80</b>	<b>5.00</b>	<b>13.90</b>

**Table:** Road connectivity and Distance:

Sl. No.	Road type	Connectivity	Distance
1	National Highway-36	Hojai to Nagaon	54.9 KM
2	PWD	Hojai to Nilbagan	9.4 km
3	National Highway-36	Hojai to LankaTown	13 km
4	National Highway-36	Hojai to LumdingTown	58.4 km
5	National Highway-36 and 37	Hojai to Guwahati	170.6 km

## 5.4 OVERVIEW OF CRITICAL ROADS:

The identification of critical road links is greatly important to the management and control of the transportation system. Existing works fail to fully consider the influence of the distribution of traffic flow and its dynamic characteristics on critical road link identification.

The study of critical roads mainly depends upon several factors like traffic conditions, road geometry characteristics, environmental factors etc. Field traffic surveys were carried out to capture the classified volume count for major arterial, sub-arterial and collector roads spread across Hojai Town. Based on the field survey data and traffic volume survey conducted by the T&CP, Nagaon at some major points were ascertained during peak hours. The critical roads in Hojai town as mentioned below:-

**Table :** Critical Roads of Hojai Municipal Board

Sl.No.	Critical Roads	Length	Overview
1	Hojai Masjid Road	0.9 Km (approx.)	Connects Jugijan interjection and Mazjid Road It is a Very Narrow Road Passes through Heart of the Town and always Busy.
2.	Purana Bazar Road	1.11 Km (approx.)	Connects Nilbagn To NH-36 Road, One of the busiest Raod of Hojai Town.
3.	Netaji Road	0.99 Km (41(approx.))	One of the important Road on connects to Hojai Head quarter Sankardev Nagar main Road.
4.	FCI Road	0.95 Km (41(approx.))	Always Busy starts from FCI Godown.
5.	R.N.T . Road		Connrcts Netaji road



## 5.5 ANALYSIS OF TRAFFIC NODES:

The major traffic nodes in Hojai town are identified which are detailed as table below:-

Area	Location of point	Description
Hojai Town Area	(i) Natun Bazar Pas Ali	This is a commercial place consist of some shops, entry to Hojai FRU, Hojai Muncipal Board, Post Office, Police Station etc. also.
	(ii) Puran Bazar	It is also a business center consist of variety of major shops, Pubic gathering Place entry to HojaiTown,
	(iii) Netaji Road	It is a Semi commercial Road. This Road connect Hojai District Head quarter Sankarnagar via Jurapukhuri.
	(iv) Masjid Road	It is an important traffic intersection and consist of commercial and business activities. It is a place of traffic congestion with Puran Bazar Road and entry to Jugijan.
	(v) Hojai College Road Chariali Point	It is a commercial place comprising with some shops, and entry to Hojai College, some residential area also connect Nataji road.

### 5.5.1 BUS TERMINUS:

Public and Private Bus stands are most temporarily located at some busy road sides of Hojai town which causes the traffic congestion and traffic hindrance. There is no any permanent bus stand at Hojai Town, however there are some stoppages were people catch vehicle for their destination. Waiting shed and toilet facilities are nil. Road side parking.

### 5.5.2 RAILWAY:

Hojai Railway station is in Hojai district making it an important railway station in the Assam. Hojai Railway Station falls under Northeast Frontier Railway zone. The Hojai railway station lies on the Guwahati–Lumding section line of the Lumding railway division. The station provides railway connectivity to different cities of India through many long-distance trains. Almost all of the major trains have a stoppage including the Rajdhani Express which connects the national capital. The station code name of Hojai is 'HJI'. As part of one of the busiest and populated Indian states, Assam, the Hojai railway station is known amongst the top hundred train ticket booking and train traveling stations of the Indian Railway. The total 83 number of trains that pass through Hojai (HJI).

Several trains are operated between Hojai and Guwahati, only to ensure that people willing to visit Guwahati can travel without any hassle, but there is no direct train in between HJI – GHY. The fastest train on Hojai to Guwahati route is Jorhat Town - Guwahati Jan Shatabdi Express which covers the distance between the two places in 2 hours 15 minutes only. Running between Hojai and Guwahati, Lumding - Guwahati Passenger is the slowest train. It takes around 6 hours and 15 minutes to reach the destination of Guwahati. DBRG MS Express, ANVT Sundari Express, KYQ LTT Special, DBRG RNY Express are some of the major trains running between Hojai and Guwahati and creating an easy connectivity. Hojai railway station is an important train stoppage for Kannchanjangha Exp., Kamrup Express, Bibak Express and many more weekly and biweekly express. For a hassle free experience, book your Hojai to Guwahati train tickets from Ease My Trip.com and get all the updated information regarding Hojai to Guwahati train fare, train time-table, types of trains, availability of seat in Hojai to Guwahati trains, etc. One can also check the train PNR status of their Hojai to Guwahati ticket online at Ease My Trip.



Hojai Railway Station

### 5.5.3 AIRPORT

The nearest International Airport is LGB International Airport in Guwahati, about 190 km away. The nearest Domestic airport is Dimapur, about 119 km away. Nearest Local airport is Tezpur Airport, about 120 km away.

### 5.6 TRAFFIC VOLUME SURVEY

The traffic volume survey in around the particular town or the city is urgently required to find out the possible solutions and improvement suggestions for the problem identified. The objectives covered in it includes identifying hourly distribution of vehicles and peak hour identification of the level of service and compare model composition on different hierarchy of roads etc.

The traffic volume survey conducted by the T&CP, Nagaon only at some main points and it is restricted only to peak hour survey from 9-00 a.m to 11.00 a.m to identify better and efficient traffic operation plan. The following table shows the traffic volume of the 4 (four ) main points within Hojai Master Plan Area.

**Table :** Traffic Volume Survey within Hojai Master Plan Area

Name of the survey point	Time : 9:00 A.M to 11:00 A.M							
	In coming				Out going			
	Fast moving		Slow moving		Fast moving		Slow moving	
1 Hojai Natun Bazar chariali Point	Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
	Bus/M. bus-	20	Bi-cycle-	101	Bus/M bus-	11	Bi-Cycle-	75
	Trucks-	11	E. Rickshaw	47	Trucks	08	E.Rikshaw	33
	Scotr/Mcyc le-	78	Thela	15	Sctr/M.cycle	89	Thela	09
	Car	80			Car	75		
Tata Sumu/ Majik-		23			Tata Sumu/ Magic	18		

		Tempo/Auto-	18			Tempo/Auto	15		
		<b>Total</b>	<b>230</b>	<b>Total</b>	<b>163</b>	<b>Total</b>	<b>216</b>	<b>Total</b>	<b>115</b>
2	Hojai Masjid Road Chariali Point	Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
		Bus/M. bus-	08	Bi-cycle-	89	Bus/M bus-	10	Bi-Cycle-	96
		Trucks	17	E.Rickshaw-	42	Trucks	15	E.Rickshaw-	32
		Scotr/Mcycle-	98	Thela	08	Sctr/M.cycle-	109	Thela	11
		Car-	63			Car	73		
		Tata Sumu/Majik	18			Tata Sumu/Majik	26		
		Tempo/Auto-	61			Tempo/Auto-	58		
		<b>Total</b>	<b>265</b>	<b>Total</b>	<b>139</b>	<b>Total</b>	<b>291</b>	<b>Total</b>	<b>139</b>

		Time:9:00 A.M to 11:00 A.M							
		In coming				Out going			
		Fast moving		Slow moving		Fast moving		Slow moving	
		Vehicle	Number	Vehicle	Number	Vehicle	Number	Vehicle	Number
3	Hojai Paas Ali Majid Point	Winger/M. bus-	13	Bi-cycle-	92	Winger/M bus-	08	Bi-Cycle-	65
		Trucks-	07	E. Rickshaw	87	Trucks	08	E.Rickshaw	85
		Scotr/Mcycle	99	Thela -	09	Sctr/M.cycle	117	Thela	06
		Car	64			Car	67		

		Tata Sumu/ Majik-	54			T. Sumu/ Majik	28		
		Tempo/Auto -	47			Tempo/Auto	41		
		<b>Total</b>	<b>284</b>	<b>Total</b>	<b>188</b>	<b>Total</b>	<b>269</b>	<b>Total</b>	<b>156</b>
4	Hojai College Road Chariali Point	<b>Time:9:00 A.M to 11:00 A.M</b>							
		<b>In coming</b>				<b>Out going</b>			
		<b>Fast moving</b>		<b>Slow moving</b>		<b>Fast moving</b>		<b>Slow moving</b>	
		<b>Vehicle</b>	<b>Numbe r</b>	<b>Vehicle</b>	<b>Numbe r</b>	<b>Vehicle</b>	<b>Numbe r</b>	<b>Vehicle</b>	<b>Numbe r</b>
		Winger/M. bus	23	Bi-cycle-	97	Winger/M bus-	20	Bi-Cycle -	102
		Trucks	12	E.Ricksh aw	76	Trucks -	17	E.Ricksh aw -	87
		Scotr/Mcycl e-	123	Thela-	31	Sctr/M.cycle-	187	Thela -	23
		Car-	127			Tata Sumu/Majik-	42		
		Tata Sumu/Majik -	25			Tempo/Auto-	38		
		Tempo/Auto -	47			Car	107		
		<b>Total</b>	<b>357</b>	<b>Total</b>	<b>204</b>	<b>Total</b>	<b>411</b>	<b>Total</b>	<b>212</b>

**SOURCE: Survey Conducted by Town and Country Planning, Nagaon**

## 5.7 PARKING:

Vehicle parking is a major problem in urban areas. With rapid growth of the urban area, the parking generation rate goes on increasing very quickly which creates major problems of parking in most of the urban areas. In the recent years, with the rapid development of economy and exorbitant increase in the motor-vehicles, parking problems in urban area have become increasingly prominent.

On street parking is found all over Hojai Town, parking usually spills over to other use areas like road carriageway and footpaths, open spaces. In turn they affect safety and environmental quality. Parking characteristics within the town

vary by areas, by land use activities and by time period. In residential areas it is by time period.

At present there is no municipal identified parking area designated for public and private parking within Hojai town as well as Planning Area. As per parking survey conducted by the Town and Country Planning, Nagaon it is observed that on street parking is found all over Hojai town.

On- Street parking is observed to be high on Purana Bazar Road, FCI Road, Jugijan Pas Ali Road. On Street parking at different places of Hojai town .



**On street parking**

## **5.8 MAJOR ACCIDENT PRONE AREA:**

As per records available from the Hojai Municipal Board and field verification it is found that there are frequent accidents are being happened in Hojai Town due to non traffic signal points and uncontrolled speed of the vehicles. Major accident prone areas of Hojai town are mentioned as below :

1. Natun Bazar Pas Ali Point
2. Purana Bazar Point
3. Netaji Road ( NSCB Road) Point
4. Masjid Road Point

## **5.9 TRANSPORTATION ISSUES AND REQUIREMENTS:**

### **5.9.1 ILLEGAL VENDING ZONE:**

- One of the major issues is of illegal vending on walking shoulders on the main streets.
- Due to illegal vending sometimes the actual accessible patch of road decrease to half lane only.
- If proper spaces are being allocated to street vendors in every zone the issue can be eliminated.
- Due to illegal possession of shoulders the pedestrian come down to road for their local trip and some time proves unsafe on congested area.
- Narrow road network with restricted capacity, particularly due to the illegal vending, resulting in congestion and loss of productivity.
- The problematic areas include intersection Hojai Purana Bazar, Hojai Natun Bazar Pas Ali, Masjid Road,

The photographs below depict the current scenario of the illegal vending zones which restricted the capacity of road resulting lead to congestion.

### **5.9.2 TRAFFIC CONGESTION:**

- Traffic congestion is quite common in Hojai Town and it takes a lot of time to commute for the commuters.
- At many places geometry of the town is very less as they have not followed any norms and standards for the road pattern as well as for other related things like road cross sections and railway level crossing etc.
- Observed encroachments on the footpath by vendors, which acutely rise the traffic congestion between include intersection Hojai College chariali, Hojai Purona Bazar road, Masjid Road, Hojai State Bank Of India have this illegal vending and parking on both sides of the road and the resultant traffic need to resolve.

The highlighted light pink dots on map within town area shows the frequent congested road patches.

### **5.10 ROAD ENCROACHMENTS:**

- Many factors can be listed out for such happenings, but few observations are mentioned below, which are
- Unauthorized parking of vehicle on pavement only.
- Many spots with exposed electric poles on pavement sides which leads to make space dead and potential for parking wheels.
- The town suffers from parking problems due to encroachment by vendors on road and off-street parking. As a result, the road width decreases and there is no space remaining to pass the vehicles or to give space to other vehicles.
- There is no designated space for parking in whole town,
- There are encroachment issues in areas namely both sides of Hojai Masjid Road to Hojai Natun Bazar Pas Ali.
- Due to lack of space, it is difficult for vehicles to pass on.
- Also, Proper facilities are needed for loading, uplifting, and downloading.
- Encroachment on both sides of the road decreases the effective width which may cause road accidents and disturbs the smooth flow of traffic.

### **5.11 TRAFFIC SIGNAL POINTS :**

There is no organized traffic signal points in Hojai town. Various junctions without traffic signals are there in the town area like- Hojai Natun Bazar Pas Ali point, Hojai Purana Bazar point and Collage chariali point, resulting in unnecessary traffic jams and more requirement of traffic brigade occurs.



*Chapter: 6***INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES**

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Infrastructure forms the backbone of a functioning society. From connectivity to migration to climate change, infrastructure touches every aspect of human life. It connects populations with education and job opportunities. It drives economic growth and job creation and it can help to reduce inequality and sustain peace. A country's economic and social development is directly dependent on a country's infrastructure. Many developed countries make a lot of progress because of the enormous growth of economic and social infrastructures. A good infrastructure makes the work process easier, resulting in a positive and high productivity. The development pressure on towns and cities of a developing country now a days is increasing with the rising urban population and growth of urban and semi-urban areas. The development of cities in itself is dependent upon the public infrastructure services. The creation of urban infrastructure is expensive and time consuming. Therefore it requires the Government to give thrust upon preparing appropriate plan and making lumpy investments.

Urban infrastructure development is the foundation of every city and remains the key to ensuring access to basic services like water, sanitation, drainage, health, education, energy, and transport. With proper and planned urban infrastructure development, residents can enjoy better living conditions & live healthier lifestyles while benefiting from enhanced environmental sustainability.

Social Infrastructure is a subset of the infrastructure sector and typically includes assets that accommodate social services like Health, Education, Housing, Civic and utilities, Transports etc.

**6.1 SOCIAL INFRASTRUCTURE:**

Social infrastructure plays a core role in both the economic development of a City and the development of society's quality of life. A sustainable development plan for social infrastructure shall aim at the creation of a liveable city through reducing the sense of alienation among the residents with less dependence on

other settlements for basic infrastructure. Social infrastructure enhances social wellbeing and furthers economic growth by providing basic services and facilities which allow businesses to develop and flourish.

Education, health, and housing facilities are the core elements of social change which serve as a base for the process of social development of an economy. They provide indirect support by building the social sector of the economy. Social infrastructure refers to the main elements of social change which serve as a base for the process of social development of a city. Economic growth refers to an increase in the real income of a city. Enhanced productivity of human beings contributes to increasing labor productivity, encourages innovations, and creates the ability to take in new technologies. Higher income builds a high level of human capital which leads to the growth of income. India has recognized the importance of human capital in economic growth. Trained and educated on sound lines, a large population can itself become an asset for the growth of an economy.

Infrastructure can be classified as social infrastructure and economic infrastructure.

**Social infrastructure** refers to the main elements of social change which serve as a base for the process of social development of a city. It contributes to economic processes indirectly and from outside the system of production and distribution. Examples: Hospitals, educational institutions, sanitary conditions, and housing facilities.

**Economic infrastructure** refers to all such elements of economic change which serve as a foundation for the process of economic growth. Examples: Transport, communication, and energy. Thus, one infrastructure supports the other. Hence, they both are related to each other.

### **6.1.1 EDUCATION**

Education is the process of facilitating learning or the acquisition of knowledge, skills, values, beliefs, habits and personal development. Education is an important factor influencing the quality of life of the people and future development of an area. It empowers them with skills and knowledge and helps them to better lead their life and access best of the employment opportunities available in the market. This in turn will impact the work force participation rate and economy of the area.

**Role of Education in Economic Development**

Education increases the accessibility of people to modern and scientific ideas.

It increases efficiency and the ability of people to absorb new technology.

It creates awareness of available opportunities and the mobility of labour.

It helps people to gain knowledge, skills and attitude which would enable them to understand changes in society and scientific advancements.

Investment in education is one of the main sources of human capital which facilitates inventions and innovations.

Available educated labour force facilitates the adaptation of advanced technology in a city.

**EDUCATION SYSTEM IN HOJAI**

There are many government and private schools, colleges in Hojai town. Hojai College will be the first name in the education institute of Hojai District.

**HOJAI COLLEGE**

In 1964, The Hojai College became a boon for the people living in Hojai. But, the pioneers of the creation of Hojai College had to face insurmountable hurdles on several fronts. But, the relentless efforts of a select band of far-sighted citizens and patronization, the establishment of college became a reality. It started with only 124 students in P.U. (Arts) and soon became popular in the southern part of Nagaon District for its high-quality education. Since its inception, this college has been guided by the concepts of excellence in academic and co-curricular aspects of students' life under the able guidance of the host of dedicated teachers.

The regular courses in the college include:

H.S Arts, H.S Commerce and H.S Science (2 years Course as per AHSEC regulation - Annual Pattern).

B.A, B.Sc., B.Com. (3 years Degree Course - Semester System under Gauhati University)

M.A. in Assamese (2 years Course Semester System under Gauhati University)

The institute offers distance mode of education in postgraduate courses. They are mentioned below:

Institute of Distance & Open Learning (IDOL)

Krishna Kanta Handique State Open University (KKHSOU)

Indira Gandhi National Open University (IGNOU)

There are a total of eighteen (18) academic departments in the Hojai College across all streams i.e. Arts, Science, and Commerce. The departments include Assamese, Bengali, Economics, Education, English, Hindi, History, Manipuri, Commerce, Accountancy, Management, Political Science, Botany, Zoology, Chemistry, Mathematics, Physics, and Statistics. Each of the departments provides H.S as well as three years degree course (B.A, B.Sc., B.Com.)

The college has recently been upgraded to University under a bill passed by the Assam Assembly on 7 September 2017. The name of the college will be changed to Rabindranath Tagore University. It has also been accredited by NAAC with Grade B (2.71).

### **HOJAI GIRLS' COLLEGE**

Hojai Girls' College, established in 1991, is a general degree women's college situated in Hojai, Assam. This college is affiliated with the Gauhati University. This college offers different bachelor's degree courses in arts.

### **DON BOSCO HIGH SCHOOL (DBHS), HOJAI**

Don Bosco High School, Hojai is an English Medium Co-Education High School established in 1971 and recognized by the government of Assam with SEBA curriculum. The course of instruction comprises the branches of education prescribed by the Government Code. The Institution is primarily meant for the Catholics, established by the Catholic Church and run on the

Church's behalf by the Archdiocese of Guwahati, having its headquarters at Guwahati, but is open to all, irrespective of religion, caste or community, provided they pledge themselves to abide by the rules and regulations of the school. Founded by priests of then Tezpur Diocese, (Now administered by the Archdiocese of Guwahati) DBHS, Hojai carries almost 50 years of pedagogic history. Over the half century, this Institution has groomed pupils to become good citizens and valued members of society who will make a positive difference and have become healthy contributors of growth. The educational system of DBHS, Hojai rests on inculcating sound moral values in a liberal and pluralistic atmosphere.

### **MARKAZ ACADEMIES**

Markazul Ma'arif is a voluntary social-welfare Non-Government Organisation with the sole motto of striving for the uplift of economically and educationally backward sections of society. Since its inception, Markaz has been uninterruptedly materializing various schemes and plans in different fields. Markaz has already carved a niche for itself in the hearts of the people with its wide network of activities throughout the country.

Markazul Ma'arif established English Medium Residential schools with the name 'Markaz Academy' both for Boys and Girls in separate campuses at Hojai in the year 1994 with only 82 students and 05 staff members. Starting just with one school at Hojai in the year 1994, now it has established 43+ schools under the name of 'Markaz Academy' which provide the students with value based quality education mostly in the rural and socially backward areas of Assam. The Markaz Academy Group of Schools has about 13,000+ students and 800+ staff across Assam in this academic year 2020. Following are some of Markazul Ma'arif education system subsidiaries situated at Hojai:

- (A) MARKAZ MODEL GIRLS' SENIOR SECONDARY SCHOOL,  
HOJAI
- (B) MARKAZ ACADEMY ENGLISH SENIOR SECONDARY  
SCHOOL, HOJAI

**Following are some other private run premier colleges and institutions in Hojai Master Plan Area:**

1. Ajmal College of Arts, Commerce And Science; Hojai
2. Maryam Ajmalwomens' College; Hojai
3. Mryamajmal womens' College of Science And Technology; Hojai
4. Maryam Ajmalwomens' College of Arts; Hojai
5. Ajmal Law College; Hojai
6. Nazirajmal Memorial College of Education; Hojai



The existing scenario of Primary, Middle school and Higher secondary school and Govt. and private Colleges in Hojai area is shown in the table given below:

**Table:** Educational Facilities available in Hojai Master Plan Area

Sl. No.	Category of Educational Institutions	Total Number of Institutions within Hojai Master Plan Area	Enrolment	Teachers
1	Lower Primary Schools	67	8622	246
2	Middle School	22	4175	150
3	High School	12	4613	134
4	Higher Secondary School	4	3420	108
5	Hojai College	2	5310	139
6	Univercity	1	3620	103
7	Junior Colleges	7	2200	135

<b>8</b>	B.Ed College (Private)	1	245	17
<b>9</b>	Commerce College	-		
<b>10</b>	Law College (Private)	1	220	16
<b>11</b>	Homeopathic	-		
<b>12</b>	Polytechnic	-		
<b>13</b>	I.T.I	-		
<b>14</b>	Fishery college	-	--	--

Source: Inspector of Schools, Elementary and Higher education

### 6.1.2 HEALTH:

Health is an essential requirement for making an efficient and active workforce. It reduces the production loss caused by worker's illnesses. The definition of health is physical and mental wellness or a condition of well-being. An example of health is what is checked during a physical examination. Health was earlier said to be the ability of the body functioning well. However, as time evolved, the definition of health also evolved. It cannot be stressed enough that health is the primary thing after which everything else follows. When someone maintains good health, everything else falls into place.

#### Causes of Poor Health in city

- **High birth rate:** Because of the rapid growth of the population, providing a safe and sufficient drinking water supply and proper sanitation for the community becomes very difficult. This leads to many health risks in society.
- **Malnutrition:** Malnutrition results in innumerable health problems and serious health issues among children.
- **Insanitary conditions and housing facilities:** Poor households are surviving in crowded and unsanitary places. They face the problem of contaminated food and water and live in sub-standard dwellings lacking in space, air, and sunlight.

### HEALTH SYSTEM IN HOJAI

The medical facilities in Hojai town are not adequate and up to the rising demand of the people of Hojai as Hojai is a highly populous district. The new building of Hojai District Civil Hospital with 200 bedded had completed its' Construction at Jorapukhuri, Sankardev Nagar Road and become functional since 1 year. Hojai FRU 200 bedded civil hospital including maternity section has been providing the medical facilities to the peoples of Hojai Municipal area. As there is not adequate healthcare facilities in Hojai, therefore Hojai FRU

Hospital is always over crowded with patient and needs its immediate expansion. Hence more and more hospitals, nursing homes and dispensaries at either public or private sector if felt here in Hojai.

In addition, Three private Hospital namely- i) Gate- Deys Nursing home Netaji Road Ward No. 6ii) Star Nursing Home Ward No. 13. iii) HAMM Hospital Ward no. 18. provides Health facilities to the entire planning area. The HAMM hospital (and research centre, founded by Maulana Haji Ajmal Ali and inaugurated in 1995 by Mother Teresa, is a premier healthcare organization. It offers free treatment to the poor. Its cheritable dispensary, established in 1986, treats over ten patients for free every day. Almost 100% of its high-tech care goes to the most deprived sections oof society with marginal payments. So far nearly 1.5 million people, including pregnant women, old peasants and ill-nourished children have benefited from this cheritable hospital.



**Table :** Medical facilities within Hojai Master Plan area

Sl. No.	Hojai Planning Area	Health Centres	No. of Beds
1.	Hojai M. B. Area	1. Hojai FRU	200
2.	Village Area	2. Hojai District Civil Hospital, Jorapukhuri	200
		3. Helth Center, Teli Basti	1
		4. Health Centre , Namdabka Gaon	1
		5. Health Centre, Hirabasti	1
		6. Health Centre, PubNandalalpur	1
		7. Health Centre, Uttar Ashinagar	1
		8. Health Centre, Pub Dhaniram Pathar	1
		9. Health Center, Milik Basti	1
		10. Health Centre Islam Nagar	1

Source : Hojai M.B. and T&CP survey



### 6.1.3 WATER SUPPLY:

Water supply system in Hojai town is conducted by PHE Department. Piped water is supplied to a section of the people of the town area and rest of the population depends upon individual source of water like ponds, ring wells and tube wells. The underground water reserve of the town is in a satisfactory condition hence it is felt that there will not be shortage of water for distribution in the town table below:

SL. No.	Tap Water from Traeat ed Source	Tap Water from Untraeat ed Source	Covered Well	Un Covered well	Hand Pump	Tubewell - borch ole	River/ canal	Tank/pond/lake	Others Sources
1	2054	245	24	26	5858	3356	15	39	137

### 6.1.4 POLICE STATIONS:

Hojai Master plan Area is controlled by Hojai police station which is located in the Natun Bazar Road In front of ASEB office Ward No- 4 and heart of the Hojai town.



Hojai Police Station

### 6.2 TRADE AND COMMERCE:

In case of commercial activities Hojai Town has been growing like other towns of Hojai District. As per data available from the Hojai Municipal Board the total

No. of retail shops in the Town Area is 2411 units and 136 No. of wholesale units.

**Table:** Data regarding Trade and Commerce within Hojai Municipal Area:

Sl. No	Type of business Units	Nos. of business Units	
		Wholesale	Retail sale
1	Grocery	26	780
2	Cloth	35	665
3	Medicine	25	65
4	Cycle shop	3	43
5	Hardware( cement dealer)	3	1
6	Electrical shop	2	35
7	Radio & T.V	5	25
8	Fruit shops	4	3
9	Egg shop	4	2
10	Jeweler	4	55
11	Hardware	-	53
12	Rice	15	30
13	Motor tyre dealer	-	5
14	Fertilizer	--	15
15	Optical shop	--	5
16	Meat shop/ Chicken	-	20
17	Timbers	-	6
18	Radio & Sewing machine	-	2
19	Dairy	-	-
20	Scooter & Motor cycle dealer	-	4
21	Book stall	6	20
22	Hotel (Lodgings)	-	7
23	Hotel (Fooding/ Resturent/Tea/sweet)	-	105
24	Gas Agency	-	3
25	Petrol Pump	-	2
26	Shopping Complex	-	3
27	Wine shop	-	22
28	Wholesale Foreign Liquor	1	-
29	Shoe Shop	3	45
30	Saloon	-	35
31	Parlor	-	10
32	Cosmetic Stationary	-	345

There are 9 (Nine) daily markets within Hojai Planning Area and 1 (One) weekly markets. Following table depicts the markets within Hojai Master Plan Area.

**Table:**

Sl. No.	Markets within Hojai Mater Plan Area	Name of market
1	Hojai Town Area	1.Hojai Natun bazar daily market ward 2 & 3
		2. Purana Bazar daily market Ward 14
2	Weekly market Hojai Town Area	1. Adarsha Bazar Weekly Market Ward No. 18
3	Village Area Daily Market	1. Dhanuharabasti Daily Small Market
		2.TeliBasti Daily Small Market
		3. HiraBasti Daily Small Market
		4. Pub Dhaniram Pathar daily Market
		5.Islam Nagar Tiniali Daily Market
		6. Uttar Bidyanagr Daily Market

Source : T&amp;CP, Nagaon Survey

**6.2.1 CREMATION /BURIAL GROUND:**

In Hojai Master Plan Area total 14 Nos. of cremation grounds and only 13 (Thirteen) burial ground as shown in the table below:

Sl. No.	Location	Number of Cremation Ground	Number of Burial Ground
1	Hojai Town Ward No. 8	1	Nil
2	Hojai Town Ward No. 18	1	Nil
3	Hojai Town Ward No. 15	Nil	1
4	Dhanuhar Basti	3	1
5	Fakira Basti	2	1
6	Teli Basti	Nil	1
7	HiraBasti	1	1
8	Uttar Ashinagr	Nil	1
9	Milik Basti	2	2
10.	Uttar Bidyanagar	1	Nil
11.	Islam Nagar	Nil	2

12	Pub Dhaniram Pothar	1	1
13	Pacchim Dhaniram Pothar	Nil	1
14	Golaghatiya Basti	2	Nil

Source:- Hojai Municipal Board

The existing cremation and burial grounds should be developed with the basic facilities like roads, waiting shed, water supply, electricity and drainage etc.

### 6.2.3 POST OFFICE:

There are 2 (two) post office within Hoja Master Plan area, one is opposite of Hojai Municipal office and the other is situated at Masjid Road which are not sufficient to meet the need of the demand of the peoples.



Hojai Post Office

### 6.2.4 FIRE STATION :

The entire Master Plan area of Hojai is covered by one Fire Station and it is situated in Sati Jaimoti Road Ward No.18.

### 6.2.5 BANKS/FINANCIAL INSTITUTIONS:

Hojai Planning area is served by 15 (Twelve) nos. of Banks and the banks located within the planning area are shown in the table below:

**Table:** Banks in Hojai Municipal Area:

Sl. No.	Name of Banks	No. of banks
1	PUNJAB NATIONAL BANK	3
2	STATE BANK OF INDIA	2
3	Union Bank	1
4	U.B.I	1
5	ASSAM GRAMIN VIKASH BANK	1
6	UCO Bank	1
7	BANDHAN BANK	1
8	IDBI	1
9	AXIS Bank	1
10	HDFC	1
11	ICICI	1
12	IIFL	1

### 6.3 RECREATIONAL FACILITIES:

Recreational facilities plays an important role in providing venues for physical activity in urban areas. The facilities are incredibly important for a healthy, vibrant community, and for citizens reaping the benefits of having a health community. Following table depicts the available of recreational facilities in the Hojai Municipal Area as well as the Planning Area.

**Table-30:** Recreational facilities within Hojai Master Plan Area :

Sl. No.	Recreational facilities	Nos. along with Name and Location
1	Parks	One (Santiban)
2	Playground	One ( Bihutoli Field)
3	Stadium	One (Main Road)
4	Library	Nil
5	Museum	Nil
6	Cremation Ground /Burial Ground	Cremation Ground -2 Burial Ground - 1
7	Cinema Hall	Nil

<b>8</b>	Public Auditorium	Nil
<b>9</b>	Swimming Pool	Nil

Source: Hojai Municipal Board

### 6.3.1 DRAINAGE SYSTEM :

The existing drainage facilities are not sufficient in Hojai town Area. Most of the new residential areas have grown without having drainage facilities. As per data received from the Hojai Municipal Board, the total drain length of Hojai M.B. Area is 72.00 Km. and out of the total length, 48.00 Km. is R.C.C and 24.00 Km. is Kacha drain. Storm water drain length of Hojai M.B Area 6.50 Km and out of the total length 3.50 Km, is R.C.C and 3.00 Km, is Kutcha drain.

Below table shows the length of drains.

**Table-31** :Drain Length of Hojai Town Area(In Km)

	Toal drain lenth	Length in Km.	
		R.C.C.	Kachha
Drain	72.00	48.00	24.00
Storm water Drain	6.50	3.50	3.00

Source : Hojai M.B

### 6.3.2 SEWERAGE SYSTEM:

At present there is no sewerage system in Hojai town as well as in the planning area. The mode of disposal is through the septic tanks with soak pits arrangement. Most of the families day to day washables dirty water and the bathroom water is disposes in own soak pits. Some of the families washable water discharge is into the open municipal drains. Almost all the holdings in the town have individual septic tank. There are no dry latrines.

### 6.4 SOLID-WASTE MANAGEMENT:

The collecting, treating, and disposing of solid waste material that is discarded because it has served its purpose and is no longer useful. Improper disposal of municipal solid waste can create unsanitary conditions and these conditions in turn can lead to pollution of the environment and to outbreaks of vector-borne

disease that is, diseases spread by rodents and insects. The tasks of solid-waste management present complex technical challenges. They also pose a wide variety of administrative, economic, and social problems that must be managed and solved.

The management of municipal solid waste is one of the main functions of all Urban Local Bodies (ULBs) in the country. All ULBs are required to meticulously plan, implement and monitor all systems of urban service delivery especially that of municipal solid waste. With limited financial resources, technical capacities and land availability, urban local bodies are constantly striving to meet this challenge.

As per data received from Hojai Municipality Board total waste generated per day in Hojai town is approximately 5 metric tons and collect and processed about 2 tons per day from various sources like households, commercial establishments, hotel, marketplace, drain cleaning and street sweeping, construction waste etc. Presently, following table depicts the nos. of vehicles and other equipments used for solid waste management system by the Hojai Municipality Board.

**Table:** Vehicles and other equipments used for solid waste management system.

Sl. No.	ITEM	NUMBER
1	Roller	1
2	Excavator com Loader(3dx Super J.C.B)	1
3	Tractor	3
4	Mini Truck	1
5	Tata Mobile	2
6	Skid Loader	1
7	Level Machine	1
8	Fogging Machine	1
9	Tempo van	5
10	Rog Machine	Nil
11	Triper	1
12	Mini JCB	3
13	Drinking Water Supply tank	3
14	Hydraulic Dustbin	Nil
15	JCB (Big)	1
16	Safai Kormosari	62
17	Cesspool	1
18	Street loader	Nil

Source :Hojai M. B

**Table:**

Sl. No.	Type of Educational Institute	Norms	Existing Numbers	Deficit	Total Requirement
1	Primary school	1 in 2500 population	67	5	5
2	Middle school	1 in 5000 population	11	25	25
3	High school	1 in 7500 population	12	12	12
4	Higher Secondary school	1 in 90,000 population	4	-	-
5	General college	1 in 1,25,000 population	1	-	-
6	Junior college	1 in 90,000 Population	7	-	-
7	B. Ed. College		1	-	-
8	Law College		1	1	1
<b>Health</b>					
9	Intermediate Hospital	1 in 1,00,000 population	1	-	-
10	Nursing Home, Maternity home	1 in 45,000 population	1	3	3
11	Sub-Dispensary	1 in 15,000 population	8	4	4
<b>Communication</b>					
12	Post Office	1 for 15,000 population	2	10	10
13	Police Station	1 for 90,000 population	1	1	1
14	Fire Station	1 for 2,00,000 population	1	-	-



*Chapter 7:***ENVIRONMENT AND CITY BEUTIFICATION PLAN****7.1 DESCRIPTION OF ECO-FRIENDLY AREAS LIKE WATER BODIES; BEELS; FORESTS; AND ALSO HERITAGE AREAS**

**Environment friendly processes**, or **environmental-friendly processes** (also referred to as **eco-friendly**, **nature-friendly**, and **green**), are sustainability and marketing terms referring to goods and services, laws, guidelines and policies that claim reduced, minimal, or no harm upon ecosystems or the environment. Companies use these ambiguous terms to promote goods and services, sometimes with additional, more specific certifications, such as ecolabels. Their overuse can be referred to as green washing. To ensure the successful meeting of Sustainable Development Goals (SDGs) companies are advised to employ environmental friendly processes in their production.<sup>[5]</sup> Specifically, Sustainable Development Goal 12 measures 11 targets and 13 indicators "to ensure sustainable consumption and production patterns.

The International Organization for Standardization has developed ISO 14020 and ISO 14024 to establish principles and procedures for environmental labels and declarations that certifiers and eco-labelers should follow. In particular, these standards relate to the avoidance of financial conflicts of interest, the use of sound scientific methods and accepted test procedures, and openness and transparency in the setting of standards.

Eco-friendly literally means earth-friendly or not harmful to the environment. This term most commonly refers to products that contribute to green living or practices that help conserve resources like water and energy. Eco-friendly products also prevent contributions to air, water and land pollution. Process for making a town eco-friendly were-

- =COMMUNITY GARDEN,
- = GREEN YOUR BUILDING,
- = SMART ENERGY POLICIES,
- =ENCOURAGE BICYCLING AMONG CITIZENS
- =REDUCE, REUSE AND RECYCLE,

= URBAN FORESTRY, EFFICIENT PUBLIC TRANSPORT, QUALITY PUBLIC SPACES, Etc.

## 7.2 RIVERS OF HOJAI DISTRICT

**7.2.1 JAMUNA:-** Jamuna River is originated in the Kaunbaman Hills of the green hilly districts of Karbi-Anglong. Initially it is known as chota Jamuna and merges with Langmelt nadi and other streams near Laitul and took the name Jamuna. After travel through hilly regions, it enters the plain area near Manja. During its course Jamuna river flows through many places like charpo teron, Manja, Majhgaon etc. Then it enters Langnit and kaki reserved forest and again flows through Hathipuragaon, shitalmari, Haoraghat, Jamaunagaon, Hojai, Baliramgo etc. and finally merges with kopili River.

After crossing NH-36 near Hojai town, it reaches Bhaluwat and now Jamuna River divide into two parts. One part flows North West direction and takes the name Batamari. Another flows in south west direction as Jamuna river and takes Dimaru river near Bhadreswari. This stretch crosses railway line near Majgaon and merges with Kopili River in Jamunamukh. The stretch between Bhaluwati and jugijan merging point of Jamuna and Dimaru became dry and only become active in monsoon season.



### 7.2.2 KOPILI:-

The River Kopili is one of the important major tributaries of the Brahmaputra on its left bank. It originates from the Saipong Reserve Forest situated in south east of Meghalaya and passes through the borders of Meghalaya, North Cachar hills and karbi anglong and enters the plains in Hojai and Nagaon district of Assam and finally joins the Brahmaputra at Kopilimukh. Its total length is 256 km of which 78 km from the common border of Meghalaya and Assam and the remaining 178 km lie in Assam.

Kopili River is an interstate river in Northeast India that flows through the states of Meghalaya and Assam and is the largest south bank tributary of the Brahmaputra in Assam. The river Kopili rises in the North Cachar Hills District in Borail Range at an altitude of 1525 meter. Then it passes through Kopili Ghat, Penumbra, Kheroni, Rajagoan, Kampur, Amsoi, Kumoi, and Mayang.



### 7.2.3 DIMRU RIVER:-

Dimru River is another important river of Hojai District and flows through South-Westerly direction on the Northern side of the Hojai Town. Basically, Dimru River is a tributary of Jamuna River and its meets near Jugijaan. During summer time the River Dry up in some parts.

This river plays an important role for the entire Hojai region. This River has immense contribution to the agricultural sector as water of this beel is used in the irrigation for Agriculture. This river is perennial and depends on the water

of the river, different types of Kharif and Rabi crops have been cultivated in different season.



#### 7.2.4 PUKHURI/TANKS OF HOJAI MASTER PLAN AREA

**Jorapukhuri, Borpukhuri** are large tanks in Hojai dug during British Rule. Jora pukhuri is located near Hojai District Civil Hospital and area is 1.5 Sq.k.m (approx.) while Borpukhuri is near Nazir Ajmal Memorial College of education which is 1.44 square km (appox.) in area. Both this two ponds has historical importance and significance and need to be preserve and conserve and proper management.



**Jora Pukhuri**



**Bor Pukhuri**

### **7.3 HISTORICAL SITES OR A PLACE:**

A historic site or heritage site is an official location where pieces of political, military, cultural, or social history have been preserved due to their cultural heritage value. Historic sites are usually protected by law, and many have been recognized with the official national historic site status. A historic site may be any building, landscape, site or structure that is of local, regional, or national significance. Usually this also means the site must be at least 50 years or older.

As Hojai is ruled by several kingdoms in different time, it has immense historical significance. In Hojai town and its surrounding area, there are so many Archeological site having historical importance and significance. Among them is Akashiganga Archeological site, Na-Nath Archeological site, Rajabari Archeological Site, Sankhadevi Archeological sites.

#### **7.3.1 REGIONAL LEVEL HERITAGE:**

Conservation of Buildings, Artifacts, structures, areas, and Precincts of Historic, aesthetic, architectural, cultural significance will fall under the norms prescribed by the ASI, would need redevelopment and redesign without hampering the fabric of area. Following are the tangible and intangible identified heritage site which falls under the regional and local context.

##### **(1) Akashiganga Archaeological site, Parokhowa, Hojai**

Remains of about three temples exist at Akashiganga Archaeological Site. Akashiganga is a rocky spot on a stream surrounded by forests. The beauty of the site is enhanced by a waterfall locally called Akashiganga and this waterfall serves as a natural picturesque background for the temple ruins. A large section of the stone temple remains have been shifted to an archaeological park and a site gallery installed nearby. Besides numerous fragments, carved temple relics, other evidence of the site include stone pillar capitals, some with carvings, amalakas, door frame, doorsills and jambs, pedestals, horizontal lotus moulded architraves and angasekharas of temples. Figures of Ganas, dancing ganas and floral designs are also to be found here. It is 26.5 Km from Hojai Town. The ruins indicate the existence of a Siva temple in the site. Its unique natural beauty,

hilly topography and forest attract people and the site remains a place for recreation over the ages.



Archeological site of Akashiganga

## **(2) Na-Nath, Archaeological Site, Kenduguri, Near Hojai**

This is situated at distance of 31 Km from Hojai Town, an old water channel to the west of the Rajbari and Sankhya Devi Archaeological Sites. The site has eight brick temples divided in symmetrical plan facing each other in two lines. The temple structures have components of stone pillar posts, bases, door jambs, doorsills, Siva linga and Yonipith.

This group of brick-built temples is unique in Assam for these structures have been found embellished with terracotta plaques laid horizontally on the outer face of the walls. The variety of representation includes diverse aspects of nature, figures of gods and goddesses, human and animal figures, floral designs, scenes from public life, religious life and other aspects -all carved to decorate the brick temple walls. Such decorative arrangement in walls of temples as seen at Nath Archaeological Site recalls artistic development of temple architecture during the Gupta period. Judging by the style, these pieces of archaeological evidence at Na-Nath can be dated to c.800 CE. The eight brick built Siva temples with one at Kenduguri nearby make altogether nine temples for which the site is known as Na-Nath.



Na-Nath Archeological site



### **(3) Rajabari Archeological site ( 9<sup>th</sup>-10<sup>th</sup> century)**

Rajabari Archaeological Site has brick and stone architectural evidence of at least six temples laid in a planned manner. The temples are surrounded by a brick built boundary wall. These brick and stone architectural remains of the temples belong to 9<sup>th</sup> – 10<sup>th</sup> century A.D. Some selected stone temple relics of this site have been preserved and displayed for the visitors at the sculpture gallery of Rajabari Archaeological Site.

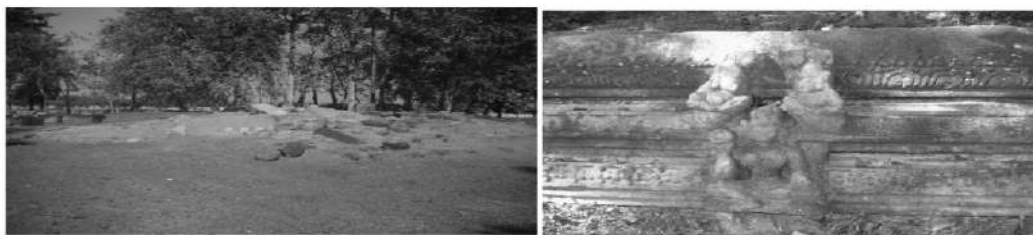


**Rajabari Archeological site**

### **(4) Sankhyadevi Archeological site:-**

Shankhyadevi site has a group of temples, located on Jogijan, a small tributary of the Kapili River. The site has three mounds containing remains of three stone temples. Of these, one mound has been salvaged and stone relics of a temple dedicated to Devi Durga have been unearthed. The remains include fragments of a massive stone door jamb with carving of a figure of Durga in the upper central part of the door frame.

Doorjambs, carved stone, pranala from garbhagriha, doorsils, lintels, pillars and numerous other carved temple relics are found in this site. Numerous fragments of stone temples are scattered everywhere. The two other mounds are undisturbed. The site has a stone stairway leading to the river indicating earlier communication that was maintained through river to the temples of this site.



**Shankyadevi Archeological site**

### 7.3.2 LOCAL LEVEL PLACE OF INTEREST:-

True to its historical importance, Hojai is marked by the presence of several old religious temples, Than, Mandir, etc. which attracts religious pilgrimage in local level. Among them were, Hojai Sarbojonin Namghar, Hojai Radha Govinda Mandir, Hojai Bangali Baruwari Durgabari etc. is important.



Hojai Sarbojonin Namghar Hojai Bangali Baruwari Durgabari Hojai Radha Govinda Mandir,  
7.3.3 Issues:

- (a) **Dilapidated condition of structure:** - Most of the Heritage Structure is in dilapidated condition due to the unavailability of conservation, restoration and preservation practices. These structures need periodic preservatory treatments in order to enhance their cultural and Historical life for coming generations.
- (b) **Unavailability of infrastructure and services:** There is an absolute absence of proper infrastructures and services in the immediate areas around the possible Archeological sites as well as tourist spots surrounding Hojai. The basic amenities also lack at these places which have to be planned accordingly.
- (c) **Absence of Monitoring:** There is no nodal body responsible for periodic monitoring of the Archeological structure around Hojai. Such nodal bodies are too constituted in order to provide proper jurisdiction to such capable heritage areas so that there's no threat to them in future.
- (d) **Lack of awareness among Public:** The Citizens are unaware about the cultural assets owned by them and they are to be made aware in order to have proper public participation in order to preserve such important historic sites. Public participation is an out most important aspect for the conservation of any site.



(e) **Absence of legal Plan:-** There is an absence of a visionary master Plan available specifically for the Archeological sites in around Hojai. Such important sites require a separate space in the administrative framework of the authorities in the legal document which has been prepared after consulting proper stakeholders and experts.

(f) **Documentation of Heritage structure:** The heritage structures of Hojai Region are not documented till date. There is a need of proper listing and documentation of heritage sites. Such sites are to be properly listed under various grades of their importance and documented specifically so that a proper conservation approach can be implemented for such important sites.

## 7.4 PROPOSED STRATEGIES:

### 7.4.1 HERITAGE MANAGEMENT AND ORGANIZATIONAL STRUCTURE:

There is a need to setup a Heritage Committee for Hojai Planning Area. The concerned Development authorities/municipalities as well as local stakeholders, NGO,s have significant role to play in successful implementation of strategies proposed for Hojai surrounding Areas. Formulations of special regulations to control or mediate development within the available heritage areas are a prerequisite for effective implementation of the proposed recommendations. Special regulations for all development within heritage areas, including new construction, demolition or modification to existing buildings around historic structures or within historic precincts must be formulated by the concerned authority with the advice of Heritage Committee. Detailed plans must be prepared by respective Municipalities.

It is necessary to prepare an inventory of build, cultural and natural heritage resources of the special areas. The inventory must include both protected and unprotected resources. The cost for most of the new developments in special heritage areas is already covered in budget allocation for “Tourism, Recreation and Culture’ and hence not included in this table. Estimates for projects those are specific for preservation of heritage resources are only included. River Front Development is treated as a separate item of budgetary allocation.

The relevant policy guidelines and management of culture and natural heritage can rejuvenate and revitalize the Hojai region and support the existing cultural identity. It can also promote tourism, boost local economy and contribute a great sense of pride amongst the residents and become a touchstone for future development.

#### **7.4.2 STRATEGIES FOR DEVELOPMENT OF RECREATIONAL AREAS:**

Recreation is any physical or psychological revitalization through the voluntary pursuit of leisure time. It is an activity which is relaxing to people and provide diversions from their normal routine. Generally there are four types of Recreational activities:

**Revitalization:** Restoration and enhancement of mental and physical health.

**Play:-**relaxation and exercise

**Adventure:** - Excitement and challenge

**Education:** organized and incidental

**Indoor Facilities** consist of library, clubs, cinema hall, auditorium, multiplex, art and craft centre, shopping mall, food courts, cyber, gymnasium etc.

**Outdoor recreation** facilities consist of gardens, parks, play ground, golf courses, zoo, and botanical garden, race course, stadium, exhibition ground, water sports complex, green ways etc.

#### **7.4.3 PROPOSAL FOR AUGMENTATION AND DEVELOPMENT OF RECREATIONAL FACILITIES:**

Development of green belts, plantation, parks, Beatification of Ponds ghats, plazas, along the riverfront abreast the urban set up and invite nature harsh environment through myriad ways. Amusement parks to be developed along with Botanical Parks, horticulture, pisi culture, herbal parks, etc. Development of eco-tourism with provision of water theme parks, lagoon resorts, weekend resorts, clubs, etc at planning area level.

#### **7.4.4 PROPOSED STRATEGIES TO BOOST TOURISM:**

As a service industry, tourism has numerous tangible and intangible elements. Major tangible elements include transportation, accommodation, and other components of a hospitality industry. Most intangible elements relate to the purpose or motivation for becoming a tourist, such as rest, relaxation, the opportunity to meet new people and experience other cultures, or simply to do something different or have an adventure.

Tourism is vital for every place, due to the income generated by the consumption of goods and services by tourist, the taxes levied on business in the tourism industry, and the opportunity for employment and economic advancement by working in the industry. For these reasons government and private agencies sometimes promote a specific region as tourist destination, and support the development of advancement by working in the industry. For these reasons government and some private agencies sometimes promote a specific region as tourist destination, and support the development of a tourism industry in that area. The contemporary phenomenon of mass tourism may result in overdevelopment; however alternative forms of tourism such as ecotourism seek to avoid such outcomes by pursuing tourism in a sustainable way.

Hojai Region offer substantial potential for tourism development. According to the existing scenario analysis, it has been observed that the following categories of tourism have immense potential for this region.

(1) Historical Tourism with historically important structures at different archeological sites namely- Na-Nath, Akachi-Ganga Archeological, Rajabari, Sankhydevi sites having ancient rock cutting of Lord Shiva, Bishnu, Earth works, temples etc. These historical places should develop in infrastructure and services facilities for tourist attraction. Hojai Archeological Park, Hojai Aakhanda Mandali, Shantiban Parks etc. in Hojai Town also attracts tourist in local level.

(2) Nature based outdoor recreation and eco-tourism for forest, riverfront, hills, River Banks, picnic spots, sightseeing etc. Presence of this entire tourism products cal for the growth of Adventure Tourism. Akashiganga Waterfall

Picnic spot (26.6 Km), and other local picnic spots on the River Banks can be developed for the attraction of tourist. Dimru river front development project can be taken up for tourist attraction.

## 7.5 CITY BEAUTIFICATION PLAN/PROPOSALS:

### 7.5.1 ROADSIDE PLANTATION:

Roadside plantation acts as a buffer between the people and government- owned forests, and it will help to reduce the extensive indiscriminate destruction of forests. Roadside tree planting can make significant improvements to the quality of roads and the environment and can protect key natural resources, especially in ASAL regions where vegetation is essential in binding the soil with organic matter that aids in enhanced infiltration and water retention in the soil.

Planting trees along the road sides, highways and pathway is known as avenue plantation. Avenue plantation is generally practiced for the aesthetic value, Beautification, shade purpose, control of soil erosion and for its economic use of timber, flowers & fruits. Best trees for roadside plantation are Neem, Krishna Chura, Radha Chura, Sonaru. etc .Trees also give us fresh air as they produce oxygen. Trees are planted along the roadside as they provide shade to the travelers during summers.

**Table:-** below table shows the Proposal of Roadside tree Plantation alongside the major Road of Hojai Town Area.

SL. No.	Name of the Road	Leng th in Km	SL. No.	Name of the Road	Leng th in Km
1	J.K Kedia Road (Main Road)	2.841	21	Nabakalpa school Road	0.569
2	N.S.C.B Raod	1.546	22	S.N Debroy Road	0.488
3	College Road	1.056	23	Abdul Hamid Road	0.264
4	G.P Kedia Road	0.491	24	Abdul Hasib school Road	1.383
5	Bhimsaria Road	0.160	25	A.K Azad Road	0.851
6	R.N.T Road	0.115	26	R.A Kiduwai Road	0.82

					5
7	J.L Bajaj Road	0.123	27	Gandhi Bidya Pith Road	0.806
8	Morning Glory school Road	0.329	28	FCI Road	0.708
9	Link Road of J.K Kedia Road & N.S.C.B Road	0.395	29	GNB Road	0.746
10	Morning Glory school road Bye lane	0.935	30	M.G Road	0.922
11	Ratan Deori Road	0.292	31	Jugijaan Road	1.163
12	Sudarshan Road	0.376	32	Station Road	0.504
13	J.U Ahmed Road	0.413	33	Sankar Deb Road	1.006
14	Sri Krishna Road	0.946	34	Kalibari Road	0.494
15	Rabindra Bidyalaya School Road	0.462	35	Rampur Road	0.606
16	Swarupananda Road	0.830	36	Madhab Dev Road	0.590
17	C.R. Das Road	1.017	37	Gadhadhar Singh Road	0.434
18	Sib-Bari Road	1.367	38	Bhugeswari Phukan Road	0.741
19	Swami Bibekananda Raod	0.665	39	Sati Jaimati Road	0.430
20	R.K Mission Road	0.831	40	Lachit Borphukan Road	0.366

**Source:-Hojai Municipal Board**

### **7.5.2 REQUIREMENTS AND STRATEGIES:**

- (a) One Kind of Flowering Trees on Both Sides
- (b) Two Kinds of Flowering Trees Blooming at one Time on both Sides of Road
- (c) Two Kinds of Flowering Trees Blooming at Different Time on both Sides of the Roads
- (d) Shady Trees Only on both Sides of Roads.

- (e) The trees should be planted at least 12 m apart from the centre of the carriageway.
- (f) If the road is constructed on the embankment, the trees should be planted as possible as high on the sides of the embankment.

## **7.6 URBAN AGRICULTURE AND URBAN FORESTRY:**

Urban agriculture, urban farming, or urban gardening is the practice of cultivating, processing, and distributing food in or around urban areas. Urban agriculture is also the term used for animal husbandry, aquaculture, urban beekeeping, and horticulture. These activities occur in peri-urban areas as well. Peri-urban agriculture may have different characteristics.

Urban agriculture can reflect varying levels of economic and social development. It may be a social movement for sustainable communities, where organic growers, "foodies", and "locavores" form social networks founded on a shared ethos of nature and community holism. These networks can evolve when receiving formal institutional support, becoming integrated into local town planning as a "transition town" movement for sustainable urban development. For others, food security, nutrition, and income generation are key motivations for the practice. In both scenarios, more direct access to fresh vegetables, fruits, and meat products through urban agriculture can improve food security and food safety.

### **7.6.1 TYPES OF URBAN FARMING:**

Backyard Gardens:- This is the growing of food on home property.

- (a) Tactical Gardens. This involves using the limited space available to practice agriculture without having to incur hefty expenses.
- (b) Street landscaping.
- (c) Forest gardening.
- (d) Greenhouses.
- (e) Rooftop gardens.
- (f) Green walls
- (g) Vertical farms.

### **7.6.2 STRATEGIES:**

- (a) Allotment gardens: An allotment garden is a plot or parcel of urban or suburban land made available for individual, non-commercial gardening or food growing and recreation.
- (b) Community gardens: Community gardens are an emerging form of urban farming.
- (c) **Inventory of your town land (and rooftops)**
- (d) **Partnerships and Cultivate market access**

Urban forestry is the care and management of single trees and tree populations in urban settings for the purpose of improving the urban environment. Urban forestry involves both planning and management, including the programming of care and maintenance operations of the urban forest. Urban forestry advocates the role of trees as a critical part of the urban infrastructure. Urban foresters plant and maintain trees, support appropriate tree and forest preservation, conduct research and promote the many benefits trees provide. Urban forestry is practiced by municipal and commercial arborists, municipal and utility foresters, environmental policymakers, city planners, consultants, educators, researchers and community activists.

The urban forestry comprises all green elements under urban influence such as, Street trees and road plantations, Public green areas, such as parks, gardens, cemeteries, Semi-private space, such as green space in residential areas and in industrial or specially designated parks.

### **7.6.3 Strategies**

- (a) Increase tree planting in neighbor hoods with low urban forest cover.
- (b) Increase Street and park tree diversity.
- (c) Plant trees to support green infrastructure and reduce climate change
- (d) Enhance biodiversity through tree planting.
- (e) Update inventory and data management for public trees.
- (f) Manage public trees for public safety and support tree health.
- (g) Work together with local people and the urban NGO related to forestry.
- (h) Raise awareness of the importance of the urban forest.

- (i) Support volunteers, NGOs, schools, and neighborhood groups in urban forest stewardship.

### **7.7 Public Rain Water Harvesting Scheme:**

Rainwater harvesting (RWH) is the collection and storage of rain, rather than allowing it to run off. Rainwater is collected from a roof-like surface and redirected to a tank, cistern, deep pit (well, shaft, or borehole), aquifer, or a reservoir with percolation, so that it seeps down and restores the ground water.

Harvesting rainwater allows the collection of large amounts of water and mitigates the effects of drought. Most rooftops provide the necessary platform for collecting water. Rainwater is mostly free from harmful chemicals, which makes it suitable for irrigation purposes. There are two ways of harvesting rainwater, namely; surface runoff harvesting and rooftop rainwater harvesting.

#### **7.7.1 THERE ARE TWO MAJOR TECHNIQUES OF RAINWATER HARVESTING:**

**1. Surface runoff harvesting:** In this method, rainwater flows away as surface runoff and can be stored for future use. Surface water can be stored by diverting the flow of small creeks and streams into reservoirs on the surface or underground. It can provide water for farming, for cattle and also for general domestic use. Surface runoff harvesting is most suitable in urban areas.

Rooftop rainwater/storm runoff can be harvested in urban areas through:

- Recharge Pit
- Recharge Trench
- Tube well
- Recharge Well

**2. Ground water recharge:** Groundwater recharge is a hydrologic process where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer. The aquifer also serves as a distribution system. The surplus rainwater can then be used to recharge groundwater aquifer through artificial recharge techniques. Rainwater in rural areas can be harvested through:



- Gully Plug
- Contour Bund
- Dugwell Recharge
- Percolation Tank
- Check Dam/Cement Plug/Nala Bund
- Recharge Shaft

Although rainwater harvesting measure is deemed to be a desirable concept since the last few years, it is rarely being implemented in rural India. Different regions of the country practiced a variety of rainwater harvesting and artificial recharge methods. Some ancient rainwater harvesting methods which includes Madakas, Ahar Pynes, Surangas, Taankas, etc.

### **7.7.2 WATER HARVESTING SCHEMES IN INDIA:**

Steps taken by the Central Government to control water depletion and promote rain water harvesting / conservation areas under:

1. Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks in India. Ministry of Jal Shakti visited water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions. In addition, 'Jal Shakti Abhiyan – Catch the Rain' campaign has been launched by Hon'ble Prime Minister of India on 22 March 2021.
2. National Water Policy (2012) has been formulated by Department of Water Resources, RD &GR, inter-alia advocates rainwater harvesting and conservation of water and highlights the need for augmenting the availability of water through direct use of rainfall. It also inter-alia, advocates conservation of river, river bodies and infrastructure should be undertaken in a scientifically planned manner through community participation. Further, encroachment and diversion of water bodies and drainage channels must not be allowed and wherever, it has taken place, it should be restored to the extent feasible and maintained properly.

3. In compliance to the decision taken by the Committee of Secretaries, an 'Inter Ministerial Committee' under the Chairmanship of Secretary (WR, RD & GR) has been constituted to take forward the subject of 'Push on Water Conservation Related Activities for Optimum Utilization of Monsoon Rainfall'.
4. Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which also includes provision of rain water harvesting.
5. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs which is a macro level plan indicating various structures for the different terrain conditions of the country including estimated cost. The Master Plan envisages construction of about 1.42 crore Rain water harvesting and artificial recharge structures in the Country to harness 185 Billion Cubic Meter (BCM) of monsoon rainfall.
6. CGWB has taken up Aquifer Mapping and Management Programme during XII Plan, under the scheme of Ground Water Management and Regulation. The Aquifer Mapping is aimed to delineate aquifer disposition and their characterization for preparation of aquifer/ area specific ground water management plans with community participation. The management plans are shared with the respective State governments for taking appropriate measures / implementation.
7. Best practices of water conservation by various entities including private persons, NGOs, PSUs etc have been compiled and put on the web site of the Ministry for the benefit of general public. An interactive link on best practices has also been created for receiving inputs from public, which, after necessary evaluation/validation are put on the website for the benefit of the public.
8. Department of Water Resources, RD& GR has instituted National Water awards to incentivize good practices in water conservation and ground water recharge.
9. Mass awareness programmes (Trainings, Seminars, Workshops, Exhibitions, Trade Fares and Painting Competitions etc.) are conducted from time to time

each year under the information, Education & Communication (IEC) Scheme of DoWR, RD & GR in various parts of the Country to promote rain water harvesting and artificial recharge to ground water.

10. The Ministry of Rural Development in consultation and agreement with the Department of Water Resources, RD & GR and the Ministry of Agriculture & Farmers' Welfare has developed an actionable framework for Natural Resources Management (NRM), titled 'Mission Water Conservation' to ensure gainful utilization of funds. The Framework strives to ensure synergies in Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), erstwhile integrated Watershed Management Programme (IWMP) now PMKSY Watershed Development Component and Command Area Development & Water Management (CADWM), given their common objectives. Types of common works undertaken under these programmes schemes are water conservation and management, water harvesting, soil and moisture conservation, groundwater recharge, flood protection, land development, Command Area Development & Watershed Management.

11. Central Government supports construction of water harvesting and conservation works primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Pradhan Mantri Krishi Sinchayee Yojana – Watershed Development Component (PMKSY-WDC).

12. Atal Bhujal Yojana (ABHY), a Rs. 6000 crore scheme with World Bank funding, for sustainable management of ground water with community participation is being taken up in the identified over-exploited and water stressed areas fall in the States of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. This scheme is expected to contribute significantly towards water and food security of the participating states.

### 7.7.3 STRATEGIES AT LOCAL LEVEL:

At local level, Urban Local Body/Municipal Board in compliance with Rain water Harvesting should strictly follow the Government Guidelines, Circulars, Manual, model circulated time to time. In different Structural construction, Planning, Drawing, there should be the provision of Rain water harvesting system. In this regards, authority related to the permission of construction of Houses, Building, Structure should follow the rules, Byelaws of Building rules. Regarding rain water harvesting in the Hojai Planning Area, Hojai Municipal Board should strictly follow the Building Rules-2014 Govt. of Assam in issuing Building construction permission and also to create Public awareness among people of the locality in rain water harvesting techniques.

### 7.8 DEVELOPMENT OF PARKS AND RECREATIONAL SPACES WITH IDENTIFICATION AND DEMARCATION OF OPEN SPACE FOR SPORTS, CULTURAL FUNCTION, FAIRS ETC IN HOJAI PLANNING AREA:

Due to rapid growth of population, the present recreational facilities are not sufficient to fulfill the needs of the people of the Hojai Town. In Hojai Town there is no any organized Parks for the Children and Playground as well as Stadium available of the people.

Proposal for Construction of Playground Infrastructure, Parks and other Recreational Facilities in Hojai Planning Area.

Sl. No.	Name of the Open space	Proposal
1	Nehru Hall at Natun Bazar	Construction of Public Auditorium with all modern facilities
2	Bihutoli Ground	Proposal for Walking zone, cycle tract, Modern Parks, Construction of Open theater with all modern facilities
3	Mahatma Gandhi Children Park	Improvement of the Park with modern facilities
4	Shantiban Park	Need to be developed
5	Gandhi Children Park	Improvement of the Park with all modern facilities for children
6	Hojai Archeological Park	Proposal for construction of Museum cum Exhibition centre for the indigenous tribe.

<b>7</b>	Suitable Plot of Land within Hojai M.B Area	Proposal for construction of 2 Nos. Modern Parks for Children and 2 Nos. for senior citizen.
<b>8</b>	Suitable Plot of land in village Area	Proposal for construction of a Community Centre & Parks in each revenue village of the H.M. P .A
<b>9</b>	Dimru River	Proposal for River Front Development Project with Eco-Tourism Parks at suitable location on the Bank Dimru River within H.M.P.A
<b>10</b>	Suitable Plot of Land within Town Area	Proposal for construction of Tourist Guest House
<b>11</b>	Jora Pukhuri, Bor-Pukhuri	Proposal for construction of Eco-Tourism Park

The sports and youth welfare activities are one of the major sectors of Human Resource Development Programme. Hojai stadium is the main playground of Hojai Town which is controlled by Hojai Sports Association. The other playgrounds around Hojai Master Plan area should be upgraded providing with all modern facilities. Besides, there should be Modern Parks, Community centre in each Revenue Village of the Hojai Master Plan Area. Considering the growth of population in Hojai town and the planning area, new parks and play grounds like Mini stadium, Gymnasium Hall, Hockey Ground are to be created in future.

*Chapter: 8***LAND USE PLAN**

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**8.1 EXISTING LAND USE OF HOJAI MASTER PLAN AREA -2021:**

Land use gives an accurate picture of an urban area which is having great significance for future planning. The main purpose of land use classification is to provide framework for the development of a particular area. The need for studying the land use aspect is elaborated as follows: To know the arrangement of various parts of town put to different uses such as residential, commercial, industrial etc.

The study of land use holds a very significant place where a particular settlement can be recognized as a town depends on its functional structure. The functional activity can be regarded as the main regions for the growth of urban centre. The main purpose of land use study is to provide framework for the development of a particular area. It gives us an idea about the proportion of various types of land.

The Existing Land Use pattern of Hojai Master Plan Area was updated based on ground reality on the scientific base map prepared with the help of Satellite Image and Revenue records like village level cadastral sheets, Field Measurement Book sheets and Town Survey Sheets. The Hojai Planning Area is administratively divided into two entities, Urban and Rural. Urban area comprises of Hojai Municipal Board area of 5.28 Sq.Km and Rural area of 73.35 Sq.Km including 30 Nos. of villages. This chapter presents the existing land use analysis, 2021 for the planning area.

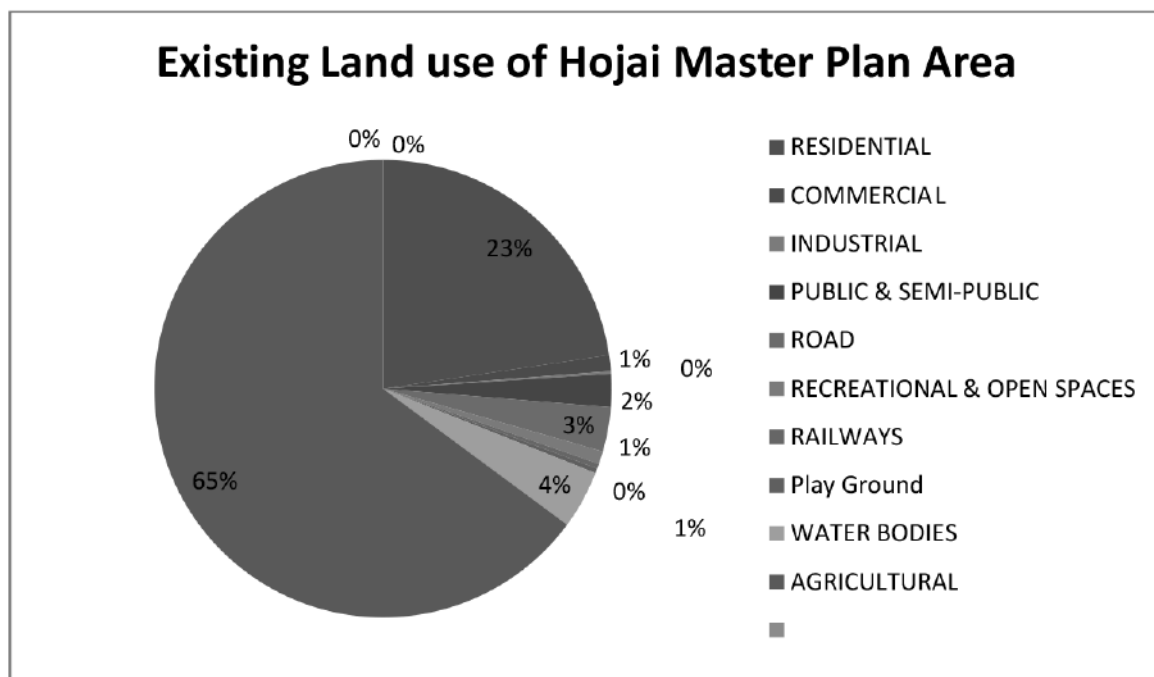
As a part of the preparation of GIS Based Master Plan- 2045, the study of the existing Land use pattern of Hojai Master plan area was carried out by a survey conducted by T&CP, District Office, Nagaon in order to formulate future policies so that a balanced approach can be made in allocating the future land uses. The existing land use in Hojai Master plan area has been grouped into the following 10 (Ten) categories.

**Table :** Existing Land use of Hojai Master Plan Area

SL NO.	LAND-USE CATEGORY	AREA (IN SQ. KM)	% OF DEVELOPED AREA	% OF TOTAL PLANNING AREA
1	RESIDENTIAL	17.80	72.97	22.65
2	COMMERCIAL	0.88	3.60	1.12
3	INDUSTRIAL	0.15	0.61	0.19
4	PUBLIC & SEMI-PUBLIC	1.83	7.50	2.33
5	ROAD	2.47	10.17	3.14
6	RECREATIONAL & OPEN SPACES	0.72	2.94	0.91
7	RAILWAYS	0.27	1.10	0.34
8	Play Ground	0.28	1.10	0.34
	<b>TOTAL DEVELOPED AREA</b>	<b>24.39</b>	<b>100.00</b>	<b>-</b>
9	WATER BODIES	3.24	5.95	4.11
10	AGRICULTURAL	51.01	94.05	64.87
	<b>TOTAL UNDEVELOPED AREA</b>	<b>54.24</b>	<b>-</b>	<b>-</b>
	<b>TOTAL AREA</b>	<b>78.63</b>	<b>-</b>	<b>100.00</b>

The detailed land use analysis of the Hojai Master Plan Area-2021, gives the picture of the shape of the Urban and Rural land for various activities. From the above table it is seen that out of the total developed land, Residential use occupied 17.80sq.km (72.97%) , 0.88 Sq.km ( 3.60%) occupied commercial use, 0.15 Sq.Km (0.61 %) occupied by industrial use, 1.83 Sq. Km (7.50 %) occupied for public and semi public use which includes various Physical and social infrastructure like Educational institutes, Government Offices, Hospitals, Govt. Residential Buildings etc., 2.46 sq. km (10.17 %) of land occupied by roads, 0.72 sq.km. (2.94 %) of land occupied by recreation facilities, 0.27 sq. km (1.10 %) of land already occupied by railways and 0.28 Sq. km. (1.10 % ) of land occupied by play ground.

Out of the undeveloped land, Agriculture land use being the predominant land use which occupies 51.01 Sq. Km.(94.05%) of the total planning area, about 3.24Sq km (5.95 %) occupies by water bodies.



From the table it is also observed that there is a huge scope of future development of the planning area. The rural area has concentration of good amount of Agricultural land, open space and water bodies and urban area also has large amount of vacant land and open spaces.

Thus the Planning area has a good scope of development of existing residential buildings and construction of new residential buildings or redevelopment in conformity with the heritage importance and special regulations for the Planning Period up to 2045.



*Chapter: 9***PROPOSED LAND USE PLAN**

By using the planning policies, techniques, principles and projections, follow up of the URDPFI Guidelines, various recommendations and proposals for the future growth of Hojai Master Plan Area have been formulated. As such recommendation and proposals have been translated into land use plan to give them spatial dimension. The land use shown in the map indicates the functional relationship between various urban activities visualized up to 2045 and aims at to provide the most economics use of urban land.

The land requirement for various urban and rural activities have also been proposed on the basis of projected population of 175167 by 2045. The distribution of land into various broad categories of land use have been made keeping in view the minimum desirable standards of development and functional linkages between them. The following table shows the land proposed for various major uses.

**Table:** Proposed Land Use classifications for different uses of Hojai Master Plan, 2045

Sl. No	Land use Category	Existing Area (in Sq. Km.)	Area (in Sq. Km.)	% of Total Planning Area
1	Residential	17.80	32.45	41.27
2	Commercial	0.88	2.00	2.55
3	Industrial	0.15	0.30	0.38
4	Public & Semi-Public	1.83	2.03	2.59
5	Road	2.46	2.47	3.14
6	Recreational & Open Spaces	0.72	1.05	1.34
7	Railways	0.27	0.27	0.35

<b>8</b>	Playground	0.28	0.28	0.36
<b>9</b>	Bus/ Truck Terminus	-	0.12	0.16
<b>10</b>	Agricultural	51.01	34.40	43.75
<b>11</b>	Water Bodies	3.24	0.56	4.12
	<b>Total area</b>	<b>78.63</b>	<b>78.63</b>	<b>100.00</b>

## **9.1 PROPOSED RESIDENTIAL USE:**

To accommodate the projected population of 175167 an area of about **15.44** Sq.km are proposed for residential use in Hojai Master Plan Area. The plan provides the following pattern of residential density.

### **9.1.1 HIGH DENSITY ZONE:**

Hojai Municipal area has been proposed as high density residential zone with a population of 75 to 100 persons per acre.

### **9.1.2 MEDIUM DENSITY ZONE:**

Within the residential areas of the villages just adjacent to the Municipal boundary have been proposed as Medium Density residential zone with a population of 50 to 75 persons per acre.

### **9.1.3 LOW DENSITY ZONE:**

The residential areas of the other villages have been proposed as low density residential zone with a population of 20 to 50 persons per acre.

## **9.2 PROPOSED COMMERCIAL LAND USE:**

Due to rapid population growth in Hojai, the existing commercial area concentrated in and around the surrounding the town area will not be sufficient to meet the need of future projected population.

Therefore, an additional area of about **1.13** Sq. Km is proposed for commercial purposes in the Hojai Master Plan area.

### **9.3 PROPOSED INDUSTRIAL LAND USE:**

There are good prospects for setting up of forest and agricultural based small and medium industries in Hojai Master Plan area. There are also good scopes for setting up of service and light consumer goods producing industries like agriculture implements, readymade garments, soap making, brick making, bakery, plastic goods, power loom etc. In addition to the existing industrial area, an area of about **0.15Sq.Km** of land has been earmarked for setting up of medium and light industries in the Hojai Master Plan Area.

### **9.4 PROPOSED PUBLIC AND SEMI-PUBLIC USE:**

Within Hojai Master Plan area land proposed for public and semi-public use is **0.21 Sq.km** of the total developed area. The public and semi-public uses have been proposed on Govt. land available in the Planning Area.

### **9.5 PROPOSED CIRCULATION PLAN:**

New road proposed under transportation will be **0.01 Sq.km.** for Hojai Master Plan -2045. The proposals for improvement and widening of roads within Hojai Master Plan area of different places are mentioned in the table. All the major junction points should be developed in a planned manner. Modern traffic signaling system is to be improved within the Hojai Master Plan Area.

### **9.6 HIERARCHY OF ROAD PROPOSED WITH WIDTH:**

- 1) Primary road - 75" width
- 2) Secondary road - 50" width
- 3) Tertiary road - 20" width

## 9.7 PROPOSED FOR RECREATIONAL FACILITIES:

A quite no. of parks and playgrounds are not available within the Hojai Master Plan area to meet the demand of the people and the condition of the existing parks and playgrounds are deplorable condition which are urgently need to be improved. Thus an area of **0.34** Sq.km. has been proposed for Recreational facilities likes parks and playgrounds in the Hojai Master Plan Area.

## 9.9 INFRASTRUCTURE PROPOSALS:

The existing social and physical infrastructure facilities and their services of Hojai Master Plan area have been studied and the deficits and future requirements are calculated as per URDPFI Guidelines as below:-

### 9.9.1 EDUCATION:

The existing educational facilities and future requirement for Hojai Master Plan area up to the year 2045 have been estimated considering a higher standard as mentioned in the table below:-

Sl. No.	Type of Educational Institute	Norms	Existing Numbers	Deficit	Total Requirement
1	Primary school	1 in 2500 population	67	5	5
2	Middle school	1 in 5000 population	11	25	25
3	High school	1 in 7500 population	12	12	12
4	Higher Secondary school	1 in 90,000 population	4	-	-
5	General college	1 in 1,25,000 population	1	-	-
6	Junior college	1 in 90,000 Population	7	-	-
7	B. Ed. College		1	-	-
8	Law College		1	1	1
<b>Health</b>					
9	Intermediate Hospital	1 in 1,00,000 population	1	-	-

10	Nursing Home, Maternity home	1 in 45,000 population	1	3	3
11	Sub-Dispensary	1 in 15,000 population	8	4	4
<b>Communication</b>					
12	Post Office	1 for 15,000 population	2	10	10
13	Police Station	1 for 90,000 population	1	1	1
14	Fire Station	1 for 2,00,000 population	1	-	-

### 9.10 SECTOR -WISE INVESTMENT PROPOSAL:

The sector wise requirement of implementation of various projects of Hojai Master Plan Area is detailed as table below:

Sl. No.	Location	Project Name
<b>Neighborhood Centre</b>		
1.	Pub Dhaniram Pathar	Neighbourhood Centre(10.01 Hac)
2.	Dakshin Bidyanagar	Neighbourhood Centre (10.12 Hac)
3.	Gopal Nagar	Neighbourhood Centre (10.05 Hac)
4.	Pacchim Nandapur	Neighbourhood Centre (10.11 Hac)
5.	Sankardev Nagar	Neighbourhood Centre (10.15 Hac)
6	Jora pukhuri	Neighbourhood Centre(10.01 Hac)
7	Rampur	Neighbourhood Centre (10.12 Hac)
8	Amtola	Neighbourhood Centre (10.05 Hac)
9	Milik basti	Neighbourhood Centre (10.11 Hac)
10	Islam Nagar	Neighbourhood Centre (10.15 Hac)
<b>Solid Waste management</b>		
11.	Hojai Planning Area	Improvement and Modernization of Solid Waste Collection, Transportation and Disposal System of Hojai
12.	Jamuna shit Area	Development of Solid Waste Engineering Landfill Site on 20 (Twenty) Bigha of Land at Dag No.

		178 of Kissam Lanka Jan under Hojai Mouza
<b>Drainage System</b>		
13.	Hojai Planning Area	Preparation of DPR for Drainage System for Hojai Area
14.	Hojai Town	Construction and Improvement of Existing Storm Water Drains
15.	Hojai Town	Cleaning and Maintenance of existing Drains
<b>Water Bodies</b>		
16.	Jora Pukhuri	Beautification of Jorapukhuri as a Eco- Tourism spot.
17.	Raja Pukhuri	Beautification of Jorapukhuri as a Eco- Tourism spot.
18.	Borpukhuri	Beautification of Jorapukhuri as a Eco- Tourism spot.
<b>Religious Spots</b>		
19	Jugijan	Improvement of Jugijan as a religious tourism spot.
<b>Traffic and Transportation</b>		
20.	Hojai Planning Area/ Pub Dhaniram Pathar/ Dangki Gaon Area	Construction of Bus Terminus
21.	Hojai Planning Area/ Dangki Gaon Area/ Pub Dhaniram Pathar	Construction of Truck Terminus
22.	Hojai Town Area	Construction of Cycle Parking
23.	Hojai Town Area	Construction of street Parking
24.	Hojai Town Area	Construction of Traffic Signals Point at various traffic congrads Area.
<b>Fly over</b>		
25.	Hojai Majzid road to Natun bazar Chariali	Construction of Fly over
26.	Jogijan bazaar to Radha Nagar	Construction of Fly over
27	Santibon Area	Construction of Flyover/ foot over bridge connecting with Ward No. 4

		to Ward No. 8
<b>Recreational Facility</b>		
28.	Nehru Hall at Natun Bazar	Construction of Public Auditorium with all modern facilities
29.	Bihutoli Ground	Proposal for Walking zone, cycle tract, Modern Parks, Construction of Open theater with all modern facilities
30.	Mahatma Gandhi Children Park	Improvement of the Park with modern facilities
31.	Shantiban Park	Need to be developed
32.	Gandhi Children Park	Improvement of the Park with all modern facilities for children
33.	Hojai Archeological Park	Proposal for construction of Museum cum Exhibition centre for the indigenous tribe.
34.	Suitable Plot of Land within Hojai M.B Area	Proposal for construction of 2 Nos. Modern Parks for Children and 2 Nos. for senior citizen.
35.	Suitable Plot of land in village Area	Proposal for construction of a Community Centre & Parks in each revenue village of the H.M. P .A
36.	Dimru River	Proposal for River Front Development Project with Eco-Tourism Parks at suitable location on the Bank Dimru River within H.M.P.A
37.	Suitable Plot of Land within Town Area	Proposal for construction of Tourist Guest House
38.	Jora Pukhuri, Bor-Pukhuri	Proposal for construction of Eco-Tourism Park
39.	Hojai Planning Area	Construction of Parks and Playgrounds.
40.	Nil Bagn Area	Construction of Parks
41.	Sankardev Nagar	Construction of Parks
42.	Rampur	Construction of Parks
43.	Pub Dhaniram Pathar	Construction of Parks and playground
44.	Uttar Bidyanagar	Construction of Parks
<b>Industrial Area</b>		

45.	Towards Hojai – Barapujia Road	Development of industrial Area
46.	Chaparmukh Area	Development of Industrial estate
47.	Garmari Area	Development of Industrial estate

<b>Improvement and widening of Road</b>		
	<b>Name of Road</b>	<b>Length in km (Appx)</b>
48.	J.K Kedia Road (Main Road)	2.841 km
49.	N.S.C.B Raod	1.546 km
50.	College Road	1.056 km
51.	G.P Kedia Road	0.491 km
52.	Bhimsaria Road	0.160
53.	R.N.T Road	0.115
54.	J.L Bajaj Road	0.123
55.	Morning Glory school Road	0.329
56.	Link Road of J.K Kedia Road & N.S.C.B Road	0.395
57.	Morning Glory school road Bye lane	0.935
58.	Ratan Deori Road	0.292
59.	Sudarshan Road	0.376
60.	J.U Ahmed Road	0.413
61.	Sri Krishna Road	0.946
62.	Rabindra Bidyalaya school Road	0.462
63.	C.R. Das Road	1.017
64.	Sib-Bari Road	1.367
65.	Swami Bibekananda Raod	0.665
66.	R.K Mission Road	0.831
67.	Nabakalpa school Road	0.569
68.	S.N Debroy Road	0.488
69.	Abdul Hamid Road	0.264
70.	Abdul Hasib school Road	1.383
71.	A.K Azad Road	0.851
72.	R.A Kiduwai Road	0.825
73.	Gandhi Bidya Pith Road	0.806
74.	FCI Road	0.708
75.	GNB Road	0.746
76.	M.G Road	0.922
77.	Jugijaan Road	1.163
78.	Station Road	0.504
79.	Sankar Deb Road	1.006



80.	Kalibari Road	0.494
81.	Rampur Road	0.606
82.	Madhab Dev Road	0.590
83.	Gadhadhar Singh Road	0.434
84.	Bhugeswari Phukan Road	0.741
85.	Sati Jaimati Road	0.430
86.	Lachit Borphukan Road	0.366
87.	Swarupananda Road	0.830

<b>Infrastructure Proposals</b>		
88.	Hojai Planning area/ Sankardev Nagar	Construction of Auditorium
89.	Hojai Planning area/ Sankardev Nagar	Construction of District Library
90.	Hojai Planning area/ Sankardev Nagar	Construction of Helipad
91.	Hojai Planning area/ Sankardev Nagar	Construction of Skill Development Center

*Chapter :10*

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**DISASTER PLAN**

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Disaster is an undesired calamities event that seriously disrupts the functioning of a community or society and causes human, material and economic or environment losses that exceed the community's or society's ability to cope using its own resources. Disasters are usually caused by nature but in some cases, it can be caused by human actions as well. Disaster can be broadly classified into water and climate related geology related and accidental related. Assam has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Flood, drought, cyclones, earth quakes and landslides have been recurrent phenomena.

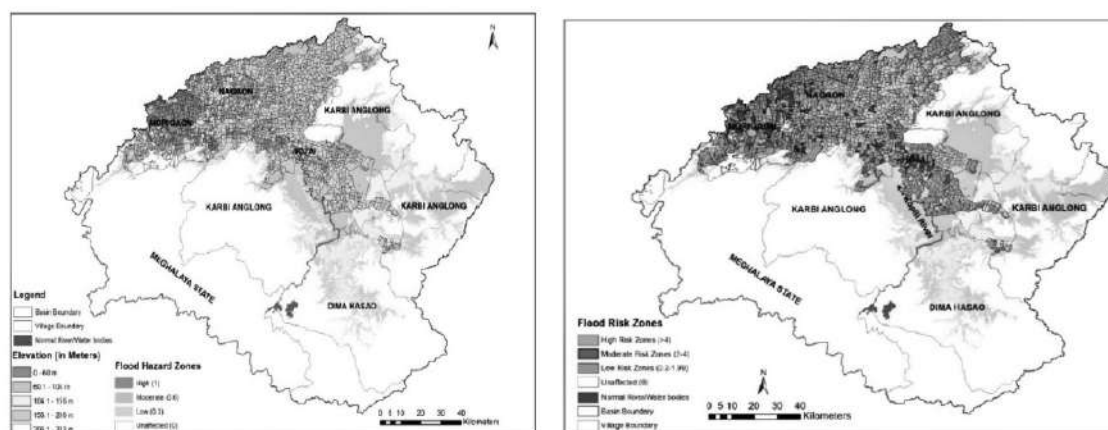
At national level, the ministry of Home affairs is the nodal Ministry for all matters concerning disaster management and at state level State Disaster Response force under Ministry of Home, Govt. of Assam is the responsible agency to tackle any disasters within the State.

Hojai District is situated at the south-eastern part of the Nagaon District and surrounded by the Karbi-Anglong District in its East, West, South and North-Eastern Part. The Kapili and Jamuna are the main rivers of this District. Hojai District is also one of the flood affected district of Assam. Basically Kapili and Jamuna are the main rivers causing flood in the district mainly during the time of monsoon period.

**10.1 FLOOD**

Due to the incessant rainfall in the time of monsoon, the Hojai region experiences heavy flood. Incessant rainfall for few days leads to rising water level of the river Kopili, Jamuna, Dimru causing flood and sub-merged many villages in flood water.

Reportedly, 2020, the flood waters of kopili, Borpani River have submerged round 210 Families of 31 Villages of Hojai circle have been affected due to flash floods in various parts of Hojai District.



The village's Lankajaan, Purb Nandlalpur, Purb Salmarajaan, Katalpur, Salmarajaan, Islamnagar, Kumrakata, Dakhin Kumrakata, Digalbari, Meenapathar, Barhola, Raja phukri, Deuripam, Jantiabasti, Jurangpathar, Darjisheet, Jamunasheet, Danwarbasti, Fakirabasti, Nowb angha, Hawaipur, Taradubi, Kanduguri, Dakhin, Kanduguri, Radhanagar I, Bakwabasti. On the other hand Hojai's Daboka, Nilbagan areas are also adversely affected by the wave's of flash flood. Kapili and Damru rivers are flowing above danger level and around 12,000 Hectare land is inundated under water.

Moreover, 2019, the excess water released from NEEPCO operated Kopili Hydro Electric project in Dima Hasao district and incessant rain for few days resulted into flash flood and disrupt normal life in some places of Hojai district which include village like Kumrakatas, Raikata, Thaplaguri, Kandaori, Nobhanga etc. In Kumrakata, the main road connecting Hojai and west Karbi-Anglong is completely flooded.

**Hojai Master Plan Area:** - Some of the Revenue villages of the Hojai Master Plan Area are also affected by Flood. They were Purb Nandalalpur, Pachim Nandalalpur, Islamnagar, Raja-Pukuri, Fakira-Basti etc.



**Flood Affected Hojai Village**

## 10.2 EARTHQUAKE:

Much of Assam lies in the Brahmaputra River Valley, except for a few southern districts. The Northern and eastern parts of this valley area bounded by the Himalayan frontal thrust. In the eastern parts along the HFT, there is the arc of the Lohit and Naga Thrusts. Among the large earthquakes in the region were the events in 1897 and 1950. The 1897 earthquake is well known for the dramatic accounts of violent up throw during the shock.

**Kopili Fault line:** In recent studies done in the river kopili basin it is found that the kopili fault extends from western part of Manipur up to the tri-junction of Bhutan, Arunachal Pradesh Assam, covers a distance of about 400 km. During the last 140 years, the kopili fault has experience 2 earth quakes of magnitudes greater than 7 in R.s and several of magnitude 4.5 to 6 in R.S. The study concludes that the North East region, more specially the kopili fault area is a geologically unstable region, surrounded by faults and lineaments and seduction zones in the east.

### Table:-

#### Earth-Quake near Hojai

Date	23 <sup>rd</sup> October 1943
Epicenter	13.6 Kms East of Hojai (Assam), India
Latitude	26.00 N
Longitude	93.00 E
Origin of Time	17:23:17 UTC/22:53:17 IST
Magnitude	Ms 7.2
Date	11 <sup>th</sup> May, 2012
Epicenter	19 km North of Hojai
Magnitude	Ms 5.4

Sources:-ASDMA

## 10.3 DROUGHT:

The Hojai, Lanka, Lumding region in central Assam valley and adjoining parts of Karbi-Anglong form a rain Shadow zone where annual rainfall is as low as 800-1200 mm. Water scarcity is a potential constraint for the people living in

**Table-**



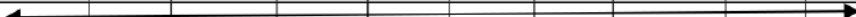



SL. No	Disastrous	Year of Occurrence	Area affected	Name of the localities
1.	Drought	2009	Hojai District	All the circles of District

Sources:-Department of Disaster Management, Nagaon

River erosion took place on the Kopili and Jamunu River in the time of monsoon due continuous downpour the volume of water increase beyond its carrying capacity leads to corrosion and river bank erosion. Moreover, continuous mining of sand from the rivers leads to river erosion.

### 10.5 SEASONAL HAZARD ANALYSIS:

Table-

Hazards	January	February	March	April	May	June	July	August	September	October	Nov.	Dec.
Cyclone	X	X	X	X	X	X	X	X	X	X	X	X
Flood												
Drought												
Earthquake												
Fire												
Lightning												
Epidemic												

## 10.6 DEPARTMENT OF DISASTER MANAGEMENT, HOJAI VULNERABILITY (RISK AND HAZARDS ANALYSIS):

**Table:**

Types of Hazards	Potential	Vulnerability	Vulnerable areas
Cyclone	Nil	-	-
Flood	Loss of crops, Human lives and animals and properties damage	Communication facility, Agriculture & Horticulture, Private infrastructure Houses, Irrigation sources, Electrical installations, Drinking water sources, Educational institution, and livestock	All the Revenue Villages of Hojai District
Drought	Drought human life and pets	Loss of Human lives & pets	Entire Hojai Districts
Earthquake	Human lives & Structures both public & Pvt.	Loss of Human lives & structures both public & pvt.	Entire Districts
Fire	Lives and property	Loss of Human lives & structures both public & pvt.	Municipality Areas of the District
Epidemic	Human lives & Pets	Loss of Human lives and pets	Entire Hojai District
Lightening	Human lives	Loss of Human lives	Entire Hojai District

**Source:-District Disaster Management Plan, DDMA, Nagaon**

**10.7 INFRASTRUCTURE VULNERABILITY AGAINST HAZARDS:****Table:-**

Vulnerability	Flood		Accident		Fire	
	Population	Area	Population	Area	Population	Area
Road network	15, 00,000 appx.	Total 2800 sq. k.m All the Revenue Circle of Hojai & Nagaon District	6, 25,000 appx.	Municipal Areas, N.H, S.H, Roads	---	---
Water Supply	15, 00,000 appx.	Total 2800 sq. k.m All the Revenue Circle of Hojai & Nagaon District	-----	-----	----	---
Hospital	50,000 appx.	All Development block areas of Hojai & Nagaon District	-----	-----	1500 appx.	
Food stocks & Supplies	15, 00,000 appx.	Total 2800 sq. km All the Revenue District of Hojai & Nagaon District	-----	-----	15,00,000	Total 2800 sq. All the Revenue Circle of Hojai
Communication (system)	15, 00,000 appx.	Total 2800 sq. km Hojai & Nagaon District	----	-----	-----	-----
Embankments	15,00,000 appx	Total 2800 sq. km All the Revenue Circle of Hojai & Nagaon	----	----	----	-----

Bridges	15,00,000 appx	Total 2800 sq. km All the Revenue Circle of Hojai & Nagaon District				
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Source:-District Disaster Management Plan, DDMA, Nagaon

### 10.8 MITIGATION PLAN:

Any disaster management plan or emergency management plan consists of four phases, namely: Mitigation, Preparedness, Response and Recovery. The Mitigation component in an emergency management plan is aimed at reducing the risk, impact, effects of a disaster. Hence careful planning eliminate the phase is important to reduce or eliminate the long-term risk to human life, property from natural and manmade calamities. It's important to have mitigation plans led by local community, working together to identify, plan for in the event of a disaster and reduce vulnerabilities and promote long term personal and community resilience and sustainability. Mitigation Plans can concentrate on both pre-disaster and post disaster efforts to reduce the impact of the disaster.

Pres-disaster Mitigation should focus on projects and interventions to address natural and man-made disaster to reduce risk to the population and property. This is mainly achieved by strengthening the resilience of National/state infrastructure. Post- disaster Mitigation efforts are primarily designed to reduce future damage in an affected area and decrease the loss of life and property and life due to the incidents following the disaster. The essential steps of hazard mitigation are:

- (1) Hazards identification
- (2) Vulnerability Analysis
- (3) Defining a Hazard Mitigation Strategy.
- (4) Implementation of Hazard Mitigation Activities and projects

Hojai region is prone to floods than any other natural disasters hence the disaster vulnerable area mitigation plan focuses on flood related eventualities and how can it be mitigated and have better preparedness. It is important to note that disaster management is an integrated task involving various government



departments of region and the plan should focus on prevention, preparedness, mitigation, response, and measures.

Table:-

Embankment and Vulnerable reaches of the Hojai District

Dyke	Area	Length	Benefiting Area	Remarks
Closing Kopili spill Channel from kharikha to Jugijan	Hojai Revenue Circle	23 k.m	24,847 H	The dyke is prone to flood damages at several locations due to seepage, leakage, boiling, overtopping etc. during high flood periods. Erosion effected reach – i. At 6th km near Jamunasheet village Affected reach – about 700 m Bank distance from dyke – 100m (minimum)

Source:-DDMA, Nagaon

## 10.9 PREVENTION:

As part of the said natural disasters the following measures can be adopted by concerned govt. departments to avoid and minimize the impacts of natural disasters.

= The public work department should monitor the major water bodies like river, streams lakes for constant flow of water, rising level and identify potential areas along the water bodies which need additional embankment or revetments, and these works should be implemented on priority before the onset of the season.

= Power and communication should carry out through inspection of power lines, communication lines for defects and rectify them. Trees and branches which may damage power and communication lines should be trimmed or removed.

=Health department should ensure the primary and community health centers are equipped with medicines and medical staff. Preventive vaccines for epidemics should be stocked in adequate quantity. Chlorination of drinking water should be ensured to avoid the outbreak of epidemics in the event of cyclones and floods.

= The department of disaster management is the nodal agency in the Nagaon region and has already handled several flood and cyclone situation in the region. From this experience, it should be able to identify the low lying and vulnerable areas and the population of such places must be warned to be alert and to be ready to safer areas or to the relief camps in case of warning disaster.

= The department of civil supplies & consumer affairs should decide for creation of buffer stock of food grains by making required withdrawal from the food corporation of India. Also, adequate quantities of kerosene and diesel should be procured and made available through the fair price shops.

=Department of Agriculture should take steps to publicize precautionary measures to be taken to save the standing crops in the vulnerable areas. Farmers should be encouraged to have platforms in their fields to stock the crops. De-silting of the public and private irrigation canals should be ensured for quick drainage of paddy fields.

=Fisheries Department shall alert all the people residing on river bank villages and hamlets about the impending natural calamities and advice the fisherman not to venture into sea till normalcy is restored.

=Department of School education shall keep all schools ready for accommodating the evacuees and keep the central kitchens to function around the clock with in charge of the centers. NCC and NSS students shall also be grouped to send them for relief works.

=Department of Animal Husbandry should store fodder, cattle feed, and poultry food etc. and also carries out the inoculation of animals against epidemics. The Key village units should harbor stray cattle with shelters.

=Transport Department should keep ready the list of sufficient numbers of earthmoving vehicles, transportation vehicles such as trucks, tractors, tippers, proclams, mini buses etc. Further, all the listed vehicle allocated in connection with calamity has to be kept in roadworthy condition for using them in emergency.

=Local Urban Bodies/Municipal Board shall make rearrangement for availability of Generators and pump sets at short notice. For areas with water logging and artificial flood local bodies should clear the L & U type drained which normally clog due to plastic materials and silt.

=Police department shall set up a Search & Rescue Team which shall contain at least 20 police personal for each jurisdiction of the superintendent of police.

=Similarly, the fire services department shall set up search & Rescue Team consisting of at least 6 members of each fire station.

### **10.9.1 MITIGATION AND PREPAREDNESS:**

Pre-disaster planning consists of activities such as disaster mitigation and disaster preparedness. Disaster mitigation focuses on the hazard that causes the disaster and tries to eliminate or drastically reduce its effects. The best example of mitigation is the construction of embankments and construction of proper drainage system in flood prone areas to avoid floods. The other example includes retrofitting of weak buildings to make them earthquake resistant. And preparedness focuses on plans to respond to a disaster threat or occurrence. It takes into account estimation of emergency needs and identifies the resources to meet the needs.

The first objective of the preparedness is to reduce the disaster impact through appropriate actions and improve the capacity of those who are likely to be improving the capacity of those who are likely to be affected most. The second is to ensure that ongoing development continues to improve the capacities and capabilities of the system to strengthen preparedness efforts at community level. Finally, it guides reconstruction so as to ensure reduction in vulnerability. The best example of preparedness activities are the development of community awareness and sanitization system through community education and administrative preparedness by way of stockpiling of supplies, developing emergency plans for rescue and relief. For successful mitigation plan it is necessary to identify short- medium-long term mitigation measures risks and damages.

The following steps can be taken the reduce the risk in the unfortunate event of the said natural disasters.

=Restore communication networks

=The task force in association with reach and rescue teams of police and fire should thoroughly search the affected area for survivors and injured.

=In case of heavy flooding and inundation, vehicular access may be restricted and hence suitable rafts/boats should used to rescue and evacuate the people affected by the floods.

=Water logging in low lying residential areas should be pumped out and the pump out water could be let out through the nearest natural drain or canal. Also

fire engines can be deployed to pump out water from affected areas during emergencies.

=Any breach in rivers, streams or natural drains should be protected with adequate sand bags or creation of temporary embankments to avoid further damage to property and human life

=In case of heavy storms, power supply to areas which are in the primary path of the storm can be disconnected to avoid hazards due to breakage of power lines. Provisions should be made to provide generators for temporary power supply to storm affected areas.

=Relief camps should be opened in appropriate location where a large number of people are affected.

**Table :- Mitigation**

	Sub-sector	Mitigation Measures	Responsible Dept.	Time frame
Infrastructure Development	Road	Repair, Restoration of vulnerable points on roads before onset of monsoon	PWD/DRDA	During Normal time and immediately
	Embankments	Repair of vulnerable points in river/canal embankment during free flood period	Water Resources/Irrigation	During Normal time and immediately
	Bridge	Repair, restoration of vulnerable points on bridge before onset of flood	PWD, NH	During Normal time
	Communication	Ensure maintenance and proper functioning of electronic communication system	BSNL	Round the year
	Drinking water	Replacement of tube well/pipe water	PHE/ Health Deppt.	During Normal time and immediately
	Power	Immediate response for repair of electric line and supply	PWD, ASEB	Round the year
Health	Vaccination	Adequate stock piling of vaccines should be ensured	CMO, DVO, NGO,s	During Normal time and immediately

	Training	Training Programme of common people should be programmed for Health care, sanitation and first aid from village level to district	CMO, DVO, NGO,s	During Normal period
Livelihood	Awareness	Creating awareness among general public during normal time to insured human life	Leading NGO,s	During Normal time
	Agriculture	Alternant cropping pattern/flood resistance crops/crops insurance etc	Dy. Director Agriculture	During normal time and immediately after disaster.
Planning and Response	Relief/Rehabilitation	Regular updating of departmental contingency plan, Community awareness and involvement of NGO,s Regular conduct of mock drill	Line Departments	During Normal time

### 10.9.2 RESPONSE PLAN:

Response measures are those taken immediately prior to and following disaster impact. It is important to have clear organizational chart structures with established line of authority within the Government mechanism to handle the response plan in case of natural calamities. Response plans include formation of functional teams and providing plans for the transportation, evacuation, search and rescue and rehabilitation. Survey and assessment part should be the part of response activity. Coordinated IEC activities should be initiated well in advance

=Mock Drill should carry out twice a year.

=Make separate plan of operation and list of required materials, tools, machineries for each kind of disaster.

=Train the rescue team with equipments

=Train the panchayat leaders, Municipal leaders, Volunteers etc.

=Approach to NDMA and SDMA for any kind of assistance.

=Incident Command Officer shall organize regular coordination meeting with all DM committee members, Head of Offices, Public leaders, NGO,s and Senior citizen in consultation with the chairman

=The RRT,s (Medical & Police) will be alerted by the incident Command Officer.

### **10.9.3 AIM OF DISASTER RESPONSE:**

= To ensure the survival of the maximum possible number of victims, keeping them in the best possible Health in the circumstances.

= To re-established self sufficiency and essential services as quickly as possible for all population group.

=To repair or replace damaged infrastructure and regenerate viable economic activities.

=In situation of civil conflict the aim is to protect and assist the civilian population.

=In case involving population displacement the aim is to find durable solutions as quickly as possible.

### **10.10 RELIEF:**

#### **10.10.1 DURING THE DISASTER**

=Disseminate the warning of disaster from DDR & IC to all concerned destination in single attempt by using mass sms, announcement through radio, social media, print media and ask the people who are likely to be affected, to take shelter in safer places.

=Immediate deploy the forces to clear the route of search & rescue and also to clear the traffic from the route of rescue

=Command to the forces, NGO,s. SHG,s & volunteers to rush immediately to the affected area for search and rescue with all pre listed tools, equipment for disaster.

#### **10.10.2 CITY DISASTER MANAGEMENT PLAN:**

The points mentioned above should be part of a city or region level disaster management Plan. The Disaster Management Act, 2005 has brought a change from response & relief oriented approach. This has encouraged many cities to formulate a city disaster management plan, the same should be worked for Hojai MPA as well to enable it to be better prepared in case of natural disasters

in the future. As part of Master Plan 2045 the authority feels there is a need for a CDMP for the Planning area covering the following general principles-

- =Risk & Hazard Assessment
- =Planning
- =Organization
- =Resource Utilization
- =Need for Specialist
- =Training

Generally, the CDMP prepared for the planning area should include sectoral plans covering the following aspects of disaster & emergency management:-

- =Overall Preparedness
- =Emergency Response
- =Prevention
- =Mitigation
- =Recovery
- =Reconstruction
- =Capacity Building Plans

